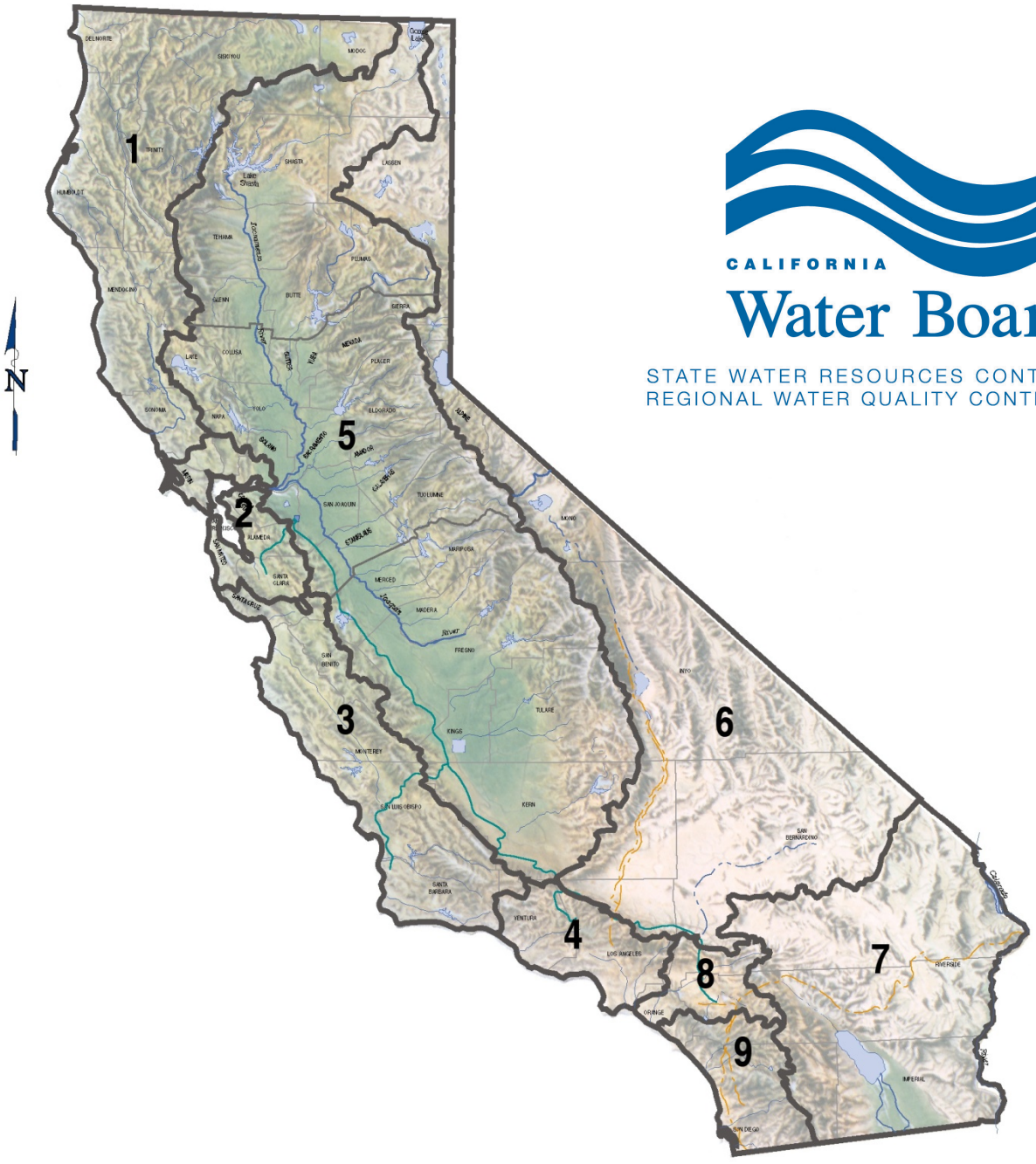
RESOURCE ALIGNMENT EVALUATION REPORT



CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

MARCH 2012

STATE OF CALIFORNIA
Governor Edmund G. Brown, Jr.

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March, 2012

With special acknowledgement to the many State and Regional Water Board staff who contributed the information and examples in this report.

Acronyms

CAA .....State Water Pollution Cleanup and Abatement Account
Cal EPA.....California Environmental Protection Agency
Caltrans..... .....California Department of Transportation
CAFO ..... Concentrated Animal Feeding Operations
CAF .....Confined Animal Facilities
CEQA..... California Environmental Quality Act
CWA .....Clean Water Act
GAMA.....Groundwater Ambient Monitoring and Assessment
IWMA ..... Integrated Waste Management Account
ILRP.....Irrigated Lands Regulatory Program
MS4 .....Municipal Separate Storm Sewer System
NPDES .....National Pollutant Discharge Elimination System
PY ..... Personnel Year
US EPA .....U.S. Environmental Protection Agency
UST..... Underground Storage Tanks
SB.....Senate Bill
SWAMP .....Surface Water Ambient Monitoring Program
SLIC ..... Spills, Leaks, Investigations, and Cleanups
TMDL .....Total Maximum Daily Load
TTWQ..... Threat to Water Quality
Water Boards.....State and Regional Water Boards
WDR ..... Waste Discharge Requirements
WDPF .....Waste Discharge Permit Fund

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Executive Summary

On October 18, 2011 the State Water Resources Control Board (State Water Board) adopted resolution No. 2011-052 approving a work plan to develop a report that assesses and aligns the State Water Board's and Regional Water Quality Control Boards' (Water Boards) priorities and resources with specific performance targets. The goal of the report is to describe the link between the fees collected and expenditures, and to align Water Board resources, priorities, and workload outputs. This effort will lead to implementation of management practices that ensure workload outputs in all programs, beginning with fee funded programs, are associated with workload standards and driven by priorities.

A description of the sources and uses of fees and revenue supporting the programs funded by the Waste Discharge Permit Fund is provided in Section 2. The Water Boards priority setting mechanisms and the constraints to aligning priorities with expenditures is discussed in Section 3.

Section 4 describes a systematic approach to set performance targets based on available resources and priorities. The methods and information contained in this report will be used to establish performance targets for the NPDES wastewater, NPDES Stormwater, and Waste Discharge to Land programs for Fiscal Year 2012-13.

The key findings of this report include:

General

- Overall, program funding is shifting from the general fund to fees. 82% of the revenues to support core regulatory functions for FY 2011-12 will be funded with fees, paid by the regulated community.

- Since FY 2000-01, resources dedicated to core functions supported by the Waste Discharge Permit Fund have increased by approximately 5%, in real dollars (adjusted for inflation), while staffing levels in these programs has declined.

- Since the State Water Board completed a needs analysis in 2000, which demonstrated that resource levels at that time were not sufficient to fully implement its core regulatory programs, total water

board personnel resources (WDPF programs) have declined by almost 12 percent[1].

Resource Alignment

- Resource allocations generally align with their funding sources; however the funding source may not reflect the highest priority water quality problems to be addressed.
- For the Irrigated Lands and 401 Water Quality Certification programs, the direct fee revenue does not appear to support the current level of resources dedicated to them[2].
- The Water Boards establish priorities in three primary ways that are based on the amount of resources available by funding source, program mandates (e.g., reissue all NPDES permits every five years), and identified priority projects that are implemented with program resources.
- Priorities established through legislation can result in a redirection of staff from other priority work if sufficient funding is not provided.
- The Water Boards have multiple tools and mechanisms to evaluate and set priorities, which include state and regional water board strategic plan direction, commitments to US EPA, and information from water quality assessment activities that identify the most common pollutants and their sources.

For more information and update on targets and performance measures please visit the third annual *Water Boards'* *Performance Report.*

[1] The PY reduction since FY 2000-01 for WDPF funded programs is 12%. The overall staff reduction for all programs was approximately 15%

[2] Finding is based, in part, on survey results that require further validation. See page 29 for a discussion of survey limitations.

Introduction

1. Introduction and Purpose of This Report

This Report provides a description of the Water Boards' budget and a summary of the sources and uses of funds for programs and activities that are fully or partially supported by the Waste Discharge Permit Fund (WDPF). The report also describes the distribution of resources by program and evaluates the alignment between WDPF revenues and expenditures.

This report also introduces a methodology for establishing workload commitments and targets associated with selected core regulatory functions for programs financed within the WDPF. The selected programs are the NPDES Wastewater, NPDES Stormwater, Waste Discharge Requirements, and Irrigated Lands programs. A breakdown of the activities that make up each program and the cost factors associated with those activities are defined. A brief description of the selected programs, goals, objectives and priorities is also provided. A future phase of this report could include working with stakeholders to evaluate compliance costs and identifying potential opportunities for cost savings.

On September 19, 2011 the State Water Resources Control Board adopted Resolution 2011-0042 containing emergency regulations revising the core regulatory fee schedules included in Title 23, Division 3, Chapter 9, Article 1, Sections 2200 and 2200.6, and adding Section 2200.7 of the California Code of Regulations.

82% of Waste Discharge Permit Fund expenditure authority for FY 2011-12 is generated from fees.

The fee schedule provides the funding authorized in the approved FY 2011-12 Budget Act. The FY 2011-12 fee schedule is projected to generate $101.3 million which is 82% of the expenditure authority for the Waste Discharge Permit Fund. Of the $101.3 million to be collected, $27.6 million is new revenue. This fee increase was caused by a shift away from general fund support to fee support for existing programs, rather than a result of program growth.

This report has the following purposes:

- Describe the composition of the program revenues/expenditures for the last ten years.
- Describe the sources of funding and distribution of resources among all WDPF funded programs.

- Describe how the Water Boards set priorities and the degree to which resources are or could be aligned with priorities.

- Describe the activities and associated cost factors for the following specific WDPF funded programs:

    i. National Pollution Discharge Elimination System (NPDES) Wastewater;
    ii. NPDES Stormwater;
    iii. Waste Discharge to Land (WDR); and
    iv. Irrigated Lands.

- Propose a method to better align performance targets with available resources and priorities.

The report includes a set of observations related to current priority setting practices and the process of allocating resources to activities, identifying the budgetary needs and tracking and evaluating performance. The report also provides an introspective evaluation of the sources and uses of Water Boards funds and the degree to which resource expenditures are aligned with priorities. Any descriptions of specific sectors of the regulated community that are contained in this report are primarily intended to demonstrate potential mechanisms for establishing priorities. The report was not intended to evaluate the water quality impacts associated with specific categories of dischargers.

Section 2

2. Sources and Uses of Funds. The Waste Discharge Permit Fund Programs and Budget Trends

The Water Boards' budget is composed of several funds. Among them is the Waste Discharge Permit Fund (WDPF).

The California Water Code Section 13260 requires each person who discharges waste or proposes to discharge waste that could affect the quality of the waters of the state to file a report of waste discharge with the appropriate Regional Water Board and to pay an annual fee set by the State Water Board, the funds from which are to be deposited in the Waste Discharge Permit Fund (WDPF). Water Code Section 13260 also requires the State Water Board to adopt, by emergency regulations, an annual schedule of fees for persons discharging waste to the waters of the state. Water Code Section 13260 further requires the State Water Board to adjust the fees annually to conform to the revenue levels set forth in the Budget Act.

> §13260(d)(2)(A) Subject to subparagraph (B), any fees collected pursuant to this section shall be deposited in the Waste Discharge Permit Fund, which is hereby created. The money in the fund is available for expenditure by the state board, upon appropriation by the Legislature, solely for the purposes of carrying out this division.

The following programs are funded, entirely or in part, by the WDPF:

- NPDES Wastewater
- Total Maximum Daily Load (TMDL)
- NPDES Stormwater
- Waste Discharge Requirements (WDR)
- Land Disposal
- Basin Planning
- Enforcement Coordination
- Timber Harvest
- Surface Water Ambient Monitoring Program (SWAMP)
- 401 Certification/Wetlands
- Confined Animal Feeding Operations (CAFO)
- Irrigated Lands (ILRP)
- Groundwater Ambient Monitoring Program (GAMA)

> §13260(f)(1) The state board shall adopt, by emergency regulations, a schedule of fees authorized under subdivision (d). The total revenue collected each year through annual fees shall be set at an amount equal to the revenue levels set forth in the budget act for this activity. The state board shall automatically adjust the annual fees each fiscal year to conform with the revenue levels set forth in the Budget Act for this activity. If the state board determines that the revenue collected during the preceding year was greater than, or less than, the revenue levels set forth in the Budget Act, the state board may further adjust the annual fees to compensate for the over and under collection of revenue.

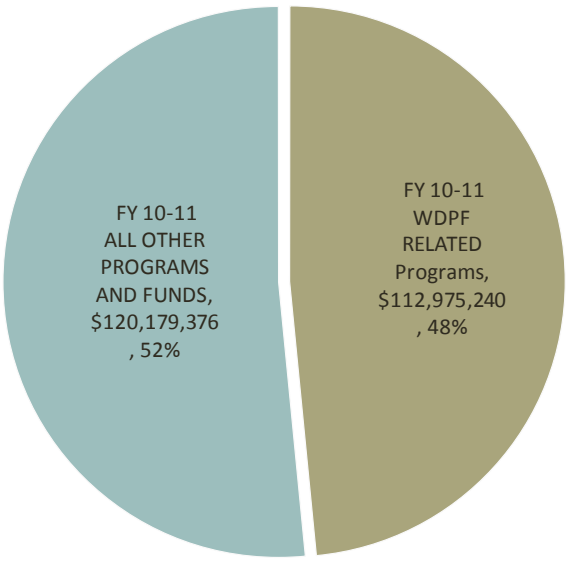
Table 1 shows the expenditures for the last five fiscal years for the programs supported by the WDPF (see Appendix A for a breakdown of program revenues and expenditures for the last ten fiscal years).

Table 1: Expenditures in WDPF funded programs FY 2007-08 to FY 2011-12[3].

WDPF PROGRAMS	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
NPDES	$ 18,758,578	$ 19,771,840	$ 16,878,981	$ 17,722,989	$ 15,748,794
STORMWATER	$ 16,480,382	$ 16,717,324	$ 15,154,922	$ 14,615,497	$ 16,050,447
TMDL	$ 16,091,051	$ 14,287,017	$ 15,112,885	$ 15,627,430	$ 16,370,570
WDR	$ 14,082,467	$ 16,778,952	$ 14,504,650	$ 13,788,880	$ 14,952,989
LAND DISPOSAL	$ 12,020,270	$ 12,603,130	$ 11,199,458	$ 11,098,381	$ 12,183,668
SWAMP	$ 8,874,734	$ 12,234,563	$ 15,400,414	$ 10,851,285	$ 11,328,441
BASIN PLANNING	$ 6,740,494	$ 7,205,148	$ 6,684,575	$ 7,488,095	$ 8,203,940
TIMBER	$ 4,615,512	$ 4,380,609	$ 4,364,755	$ 8,159,558	$ 7,336,201
ENFORCEMENT	$ 4,987,441	$ 5,107,424	$ 4,756,673	$ 4,710,355	$ 5,295,576
401 CER	$ 3,459,102	$ 3,262,827	$ 2,736,329	$ 3,017,547	$ 3,004,581
CAFO	$ 2,359,444	$ 2,822,556	$ 2,258,481	$ 2,107,342	$ 2,412,594
ILRP	$ 2,273,515	$ 2,199,060	$ 1,736,921	$ 1,778,863	$ 1,914,414
GAMA	$ 1,801,460	$ 2,024,611	$ 1,810,443	$ 2,009,018	$ 2,050,727
Grand Total	**$ 112,544,450**	**$ 119,395,061**	**$ 112,599,487**	**$ 112,975,240**	**$ 116,852,942**

WDPF program fees represent 49% of the $233 million[4] that the Water Boards have allocated for water quality and water right programs and their share of operations and indirect costs.[5]

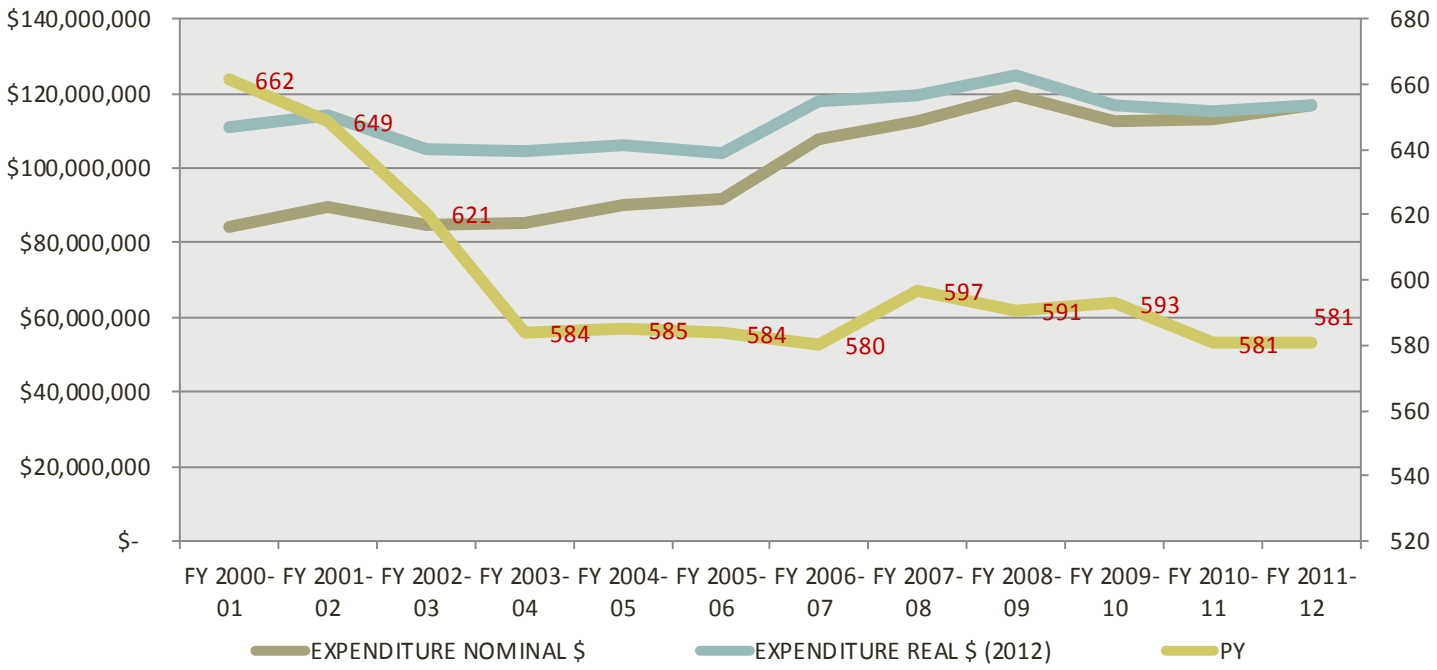
BUDGET: *A "budget" is a plan for the accomplishment of programs related to objectives and goals within a definite time period, including an estimate of resources required, together with an estimate of resources available, usually compared with one or more past periods and showing future requirements.*



[3] Expenditures for FY 2011-12 are projected in Table 1 and Figures 1 through 15.
[4] $233 million represents total Water Board expenditures minus pass through money (e.g., UST claim payments, grants, loans, etc.,).
[5] See Appendix A for a table of all water quality program expenditures.

The following series of charts show the total expenditures (direct and indirect) and staffing levels (direct cost) for the WDFP funded programs over the 10-year period spanning from FY 2001-02 Through FY 2011-2012.

Figure 1: Water Board WDPF Funded Expenditures and Positions FY 00-01 through FY 11-12



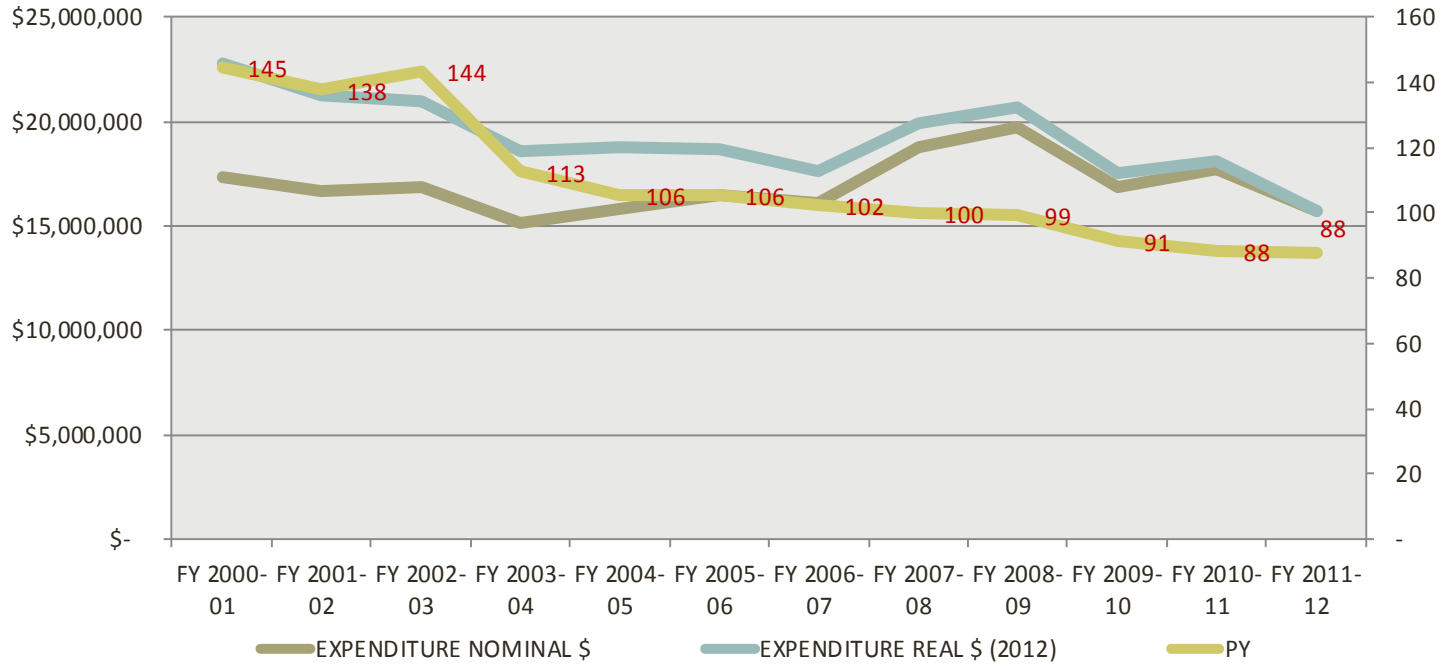
Adjusted for inflation, the WDPF funded programs budget increased by 5% in 12 years (from FY 2000-01 to FY 2011-12).

The source of revenues for these expenditures includes fees, general funds, federal funds and other funds. Overall program resources have remained relatively stable over time; however, various issues have impacted the level of expenditures over the years in certain programs, which has resulted in some expenditure variability. Two major impacts to staff expenditures were salary increases (engineers and geologists) that increased costs for several years in a row in the mid 2000's and the more recent salary decreases due to furloughs. Additionally, there have been some instances where "one-time" funds or additional staff (via Budget Change Proposals) have been provided to the Water Boards for various staffing and contract needs. These usually result in the larger spikes in expenditure information. Examples are additional funds in the Timber Program for the Pacific Lumber (PALCO) Litigation, increase staff in the CAFO/Dairies program, etc. However, the majority of the changes are due to changes in salary costs, as noted previously.

Although WDPF expenditures have increased by approximately 38% from FY 2000-01 to FY 2011-12 in nominal (current) dollars or from $88,392,890 to $116,852,942, in real dollars this increment is 5%. Therefore, despite the 12% reduction in personnel years (PY), the cost of the WDPF programs has remained fairly static since FY 2000-01. There are, however, significant differences in funding trends for certain programs within the WDPF.

The following graph shows the evolution of the expenditures for the NPDES program in constant (real or adjusted for inflation) dollars and indicates that the NPDES program has seen a reduction in the amount of resources available.

Figure 2: NPDES Program Funded Expenditures and Positions FY 00-01 through FY 11-12



The following graphs display the evolution of the funding and personnel directly allocated to each of the WDPF funded programs.

Figure 3: STORMWATER Program Funded Expenditures and Positions FY 00-01 through FY 11-12

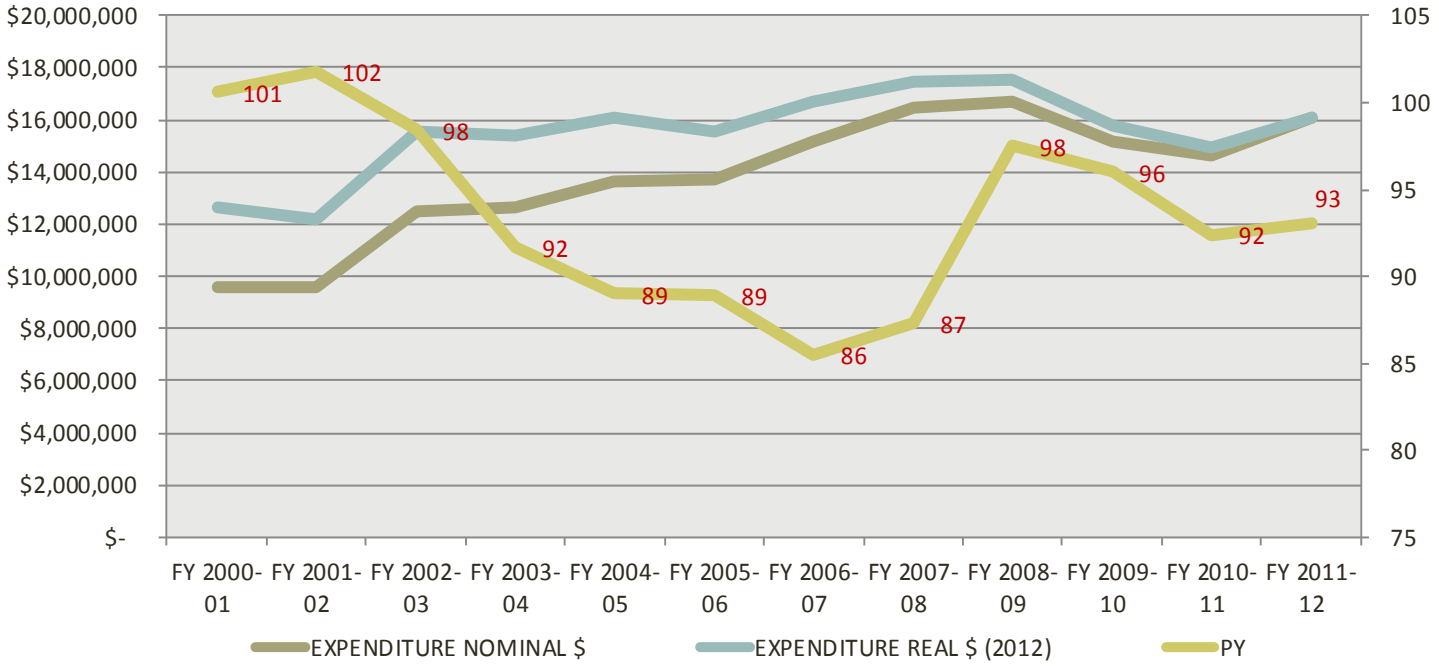


Figure 4: TMDL Program Funded Expenditures and Positions FY 00-01 through FY 11-12

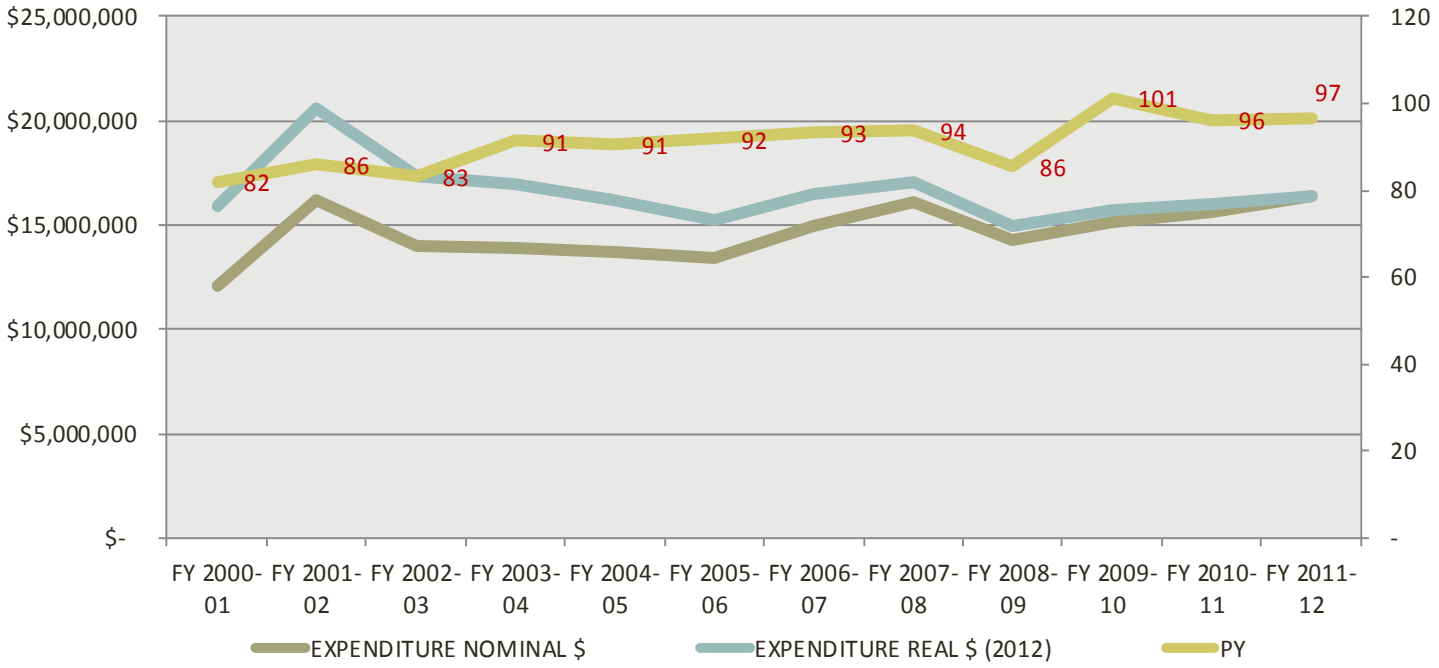


Figure 5: WDR Program Funded Expenditures and Positions FY 00-01 through FY 11-12

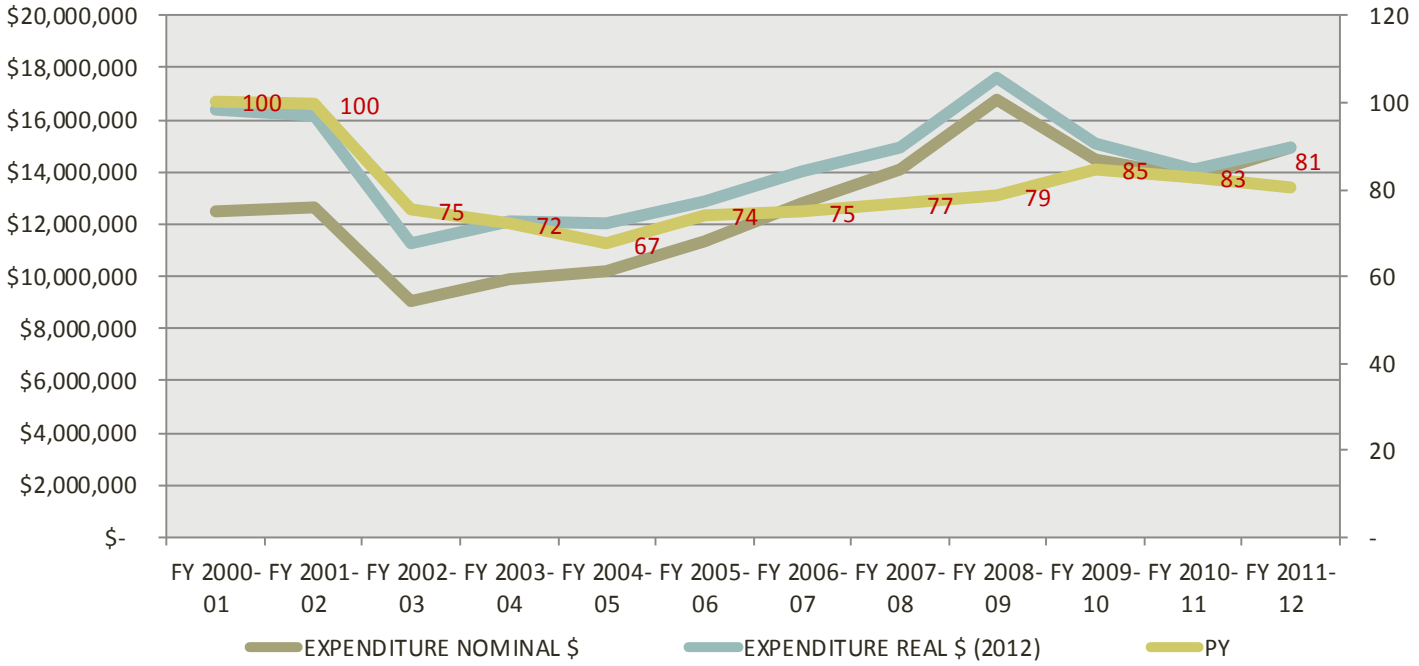


Figure 6: LAND DISPOSAL Program Funded Expenditures and Positions FY 00-01 through FY 11-12

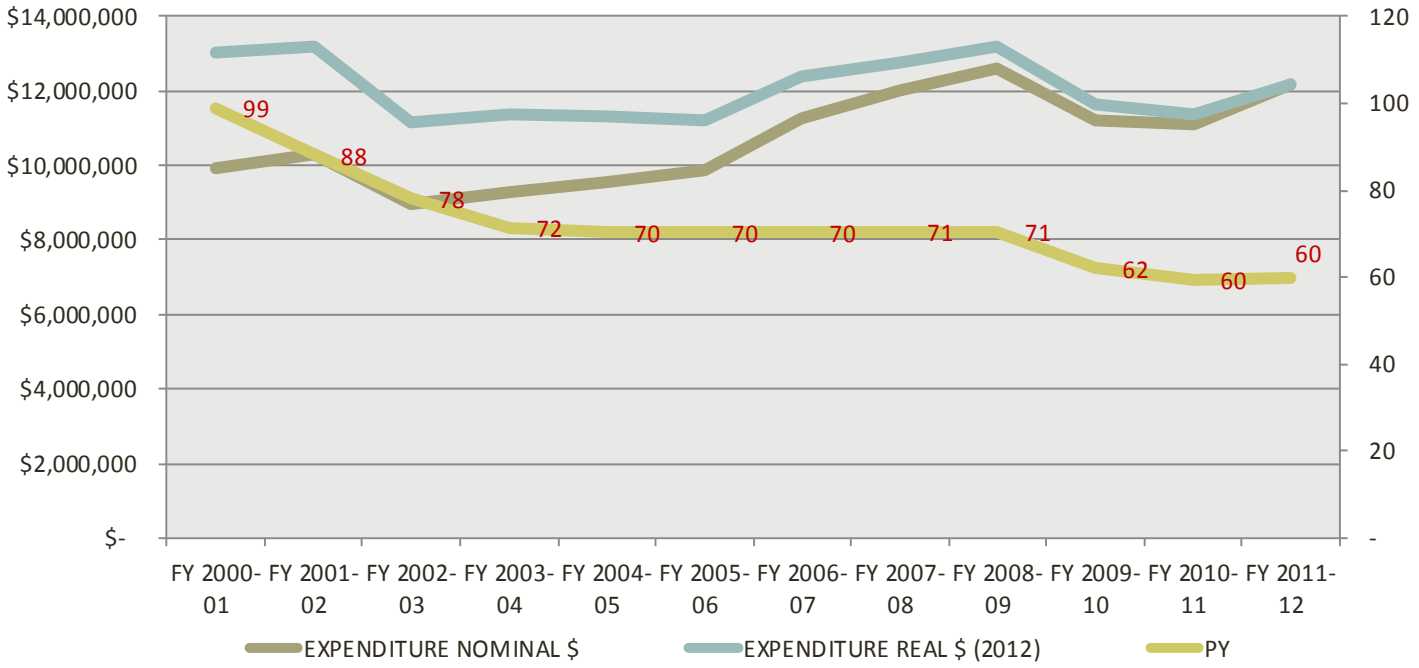


Figure 7: SWAMP Program Funded Expenditures and Positions FY 00-01 through FY 11-12

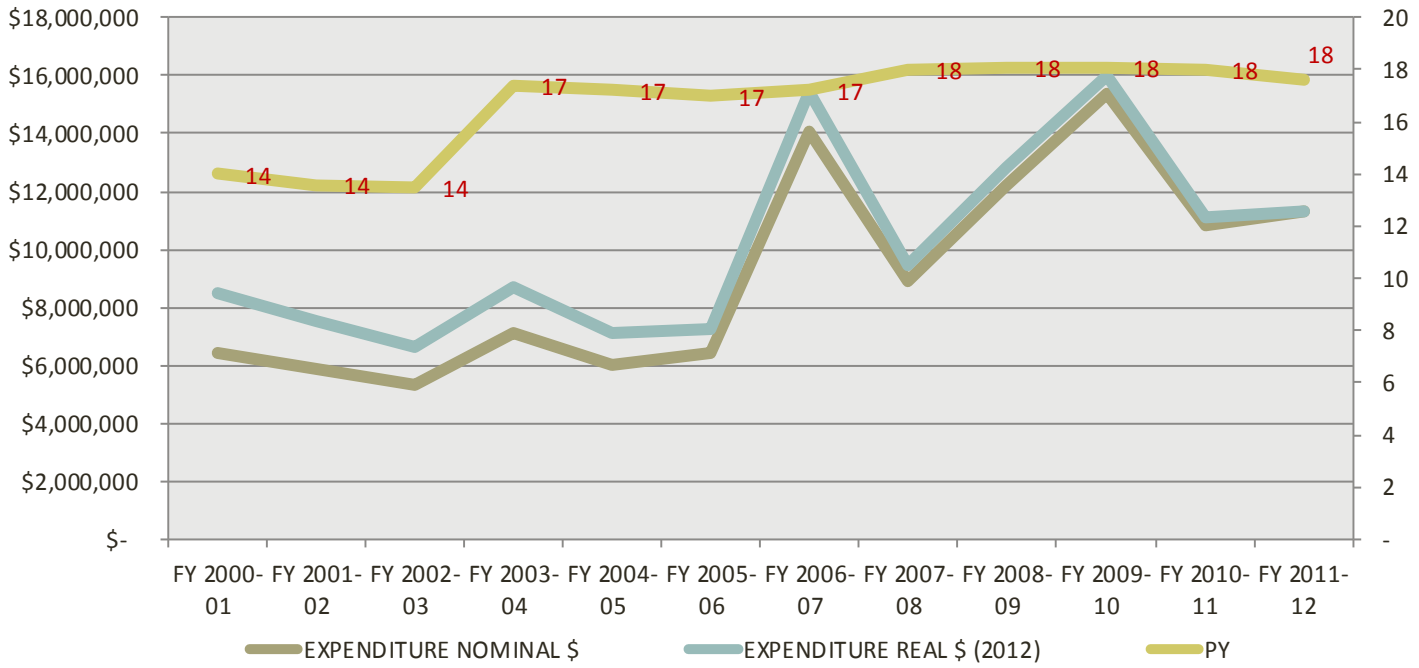


Figure 8: BASIN PLANNING Program Funded Expenditures and Positions FY 00-01 through FY 11-12

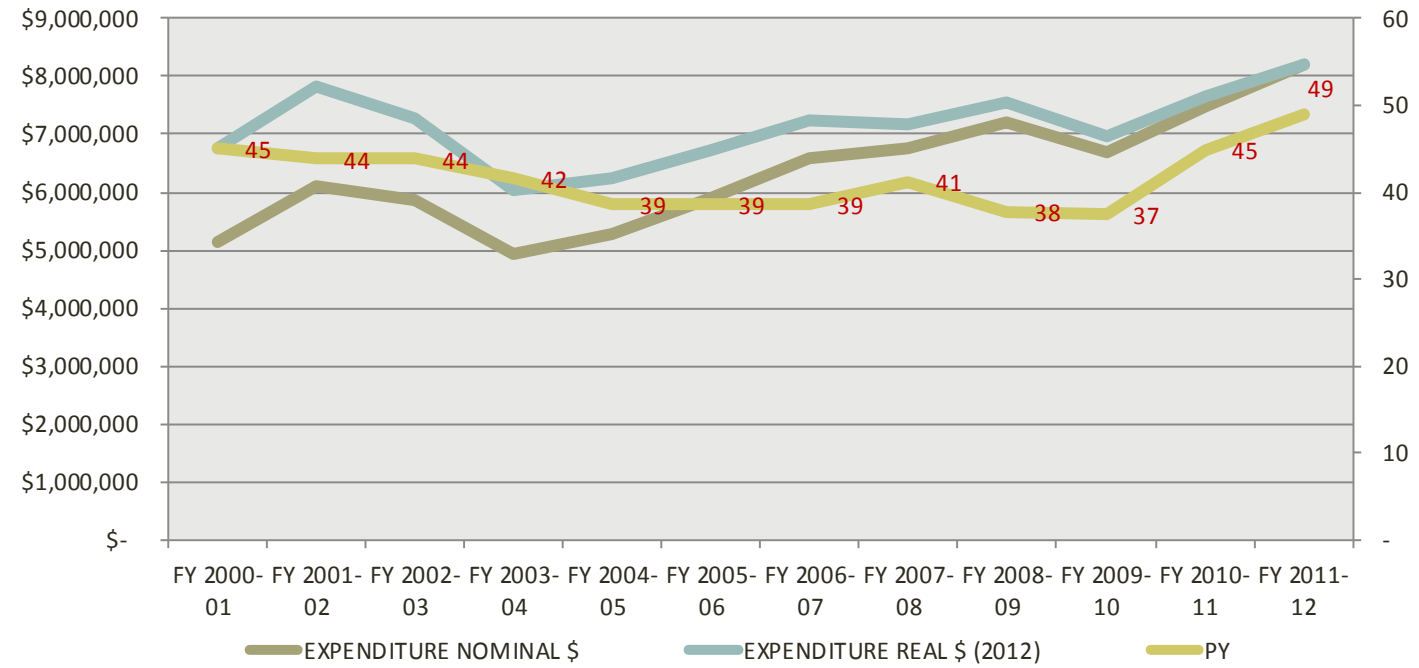


Figure 9: TIMBER HARVEST Program Funded Expenditures and Positions FY 00-01 through FY 11-12

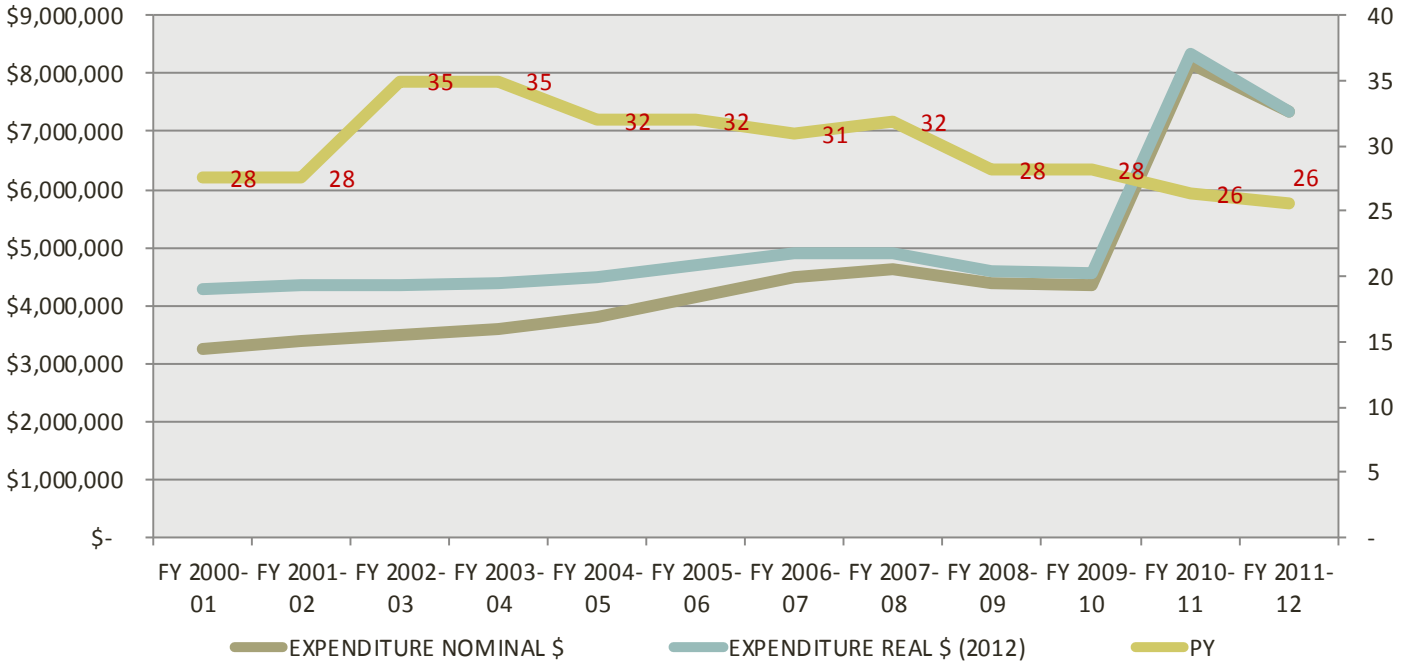


Figure 10: ENFORCEMENT Program Funded Expenditures and Positions FY 00-01 through FY 11-12

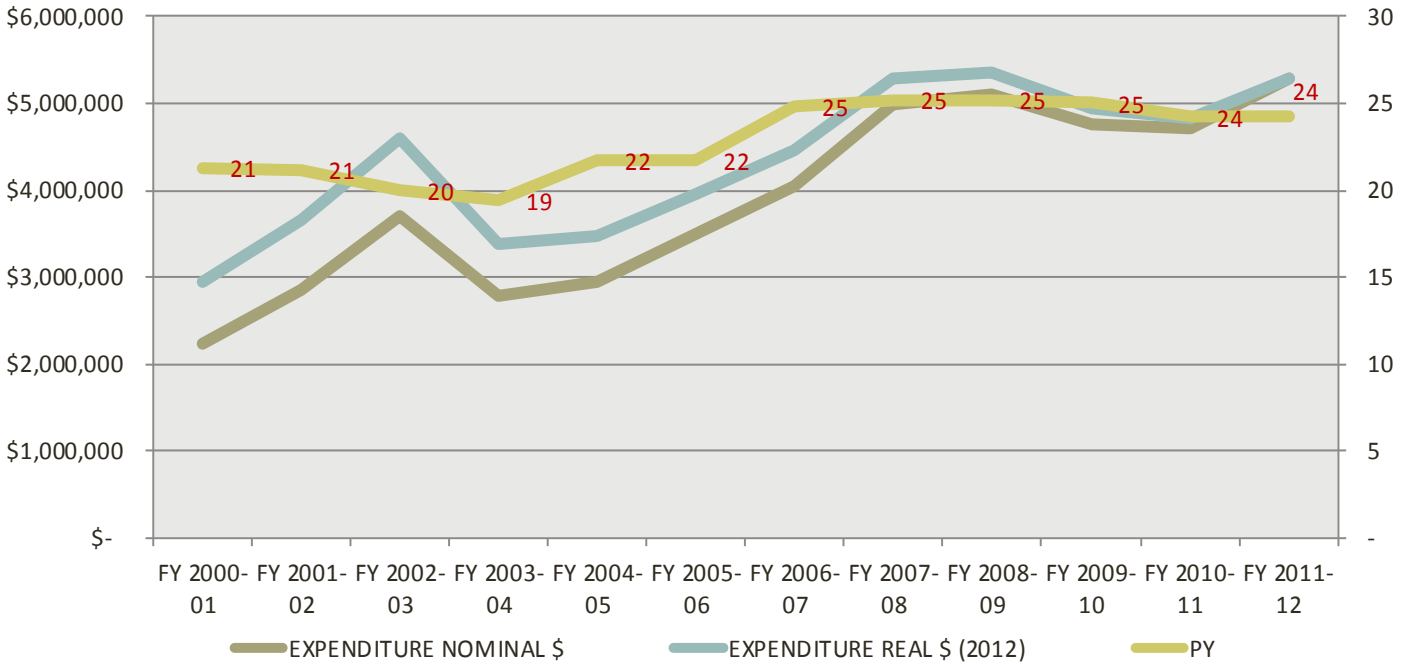


Figure 11: 401 CERTIFICATION Program Funded Expenditures and Positions FY 00-01 through FY 11-12

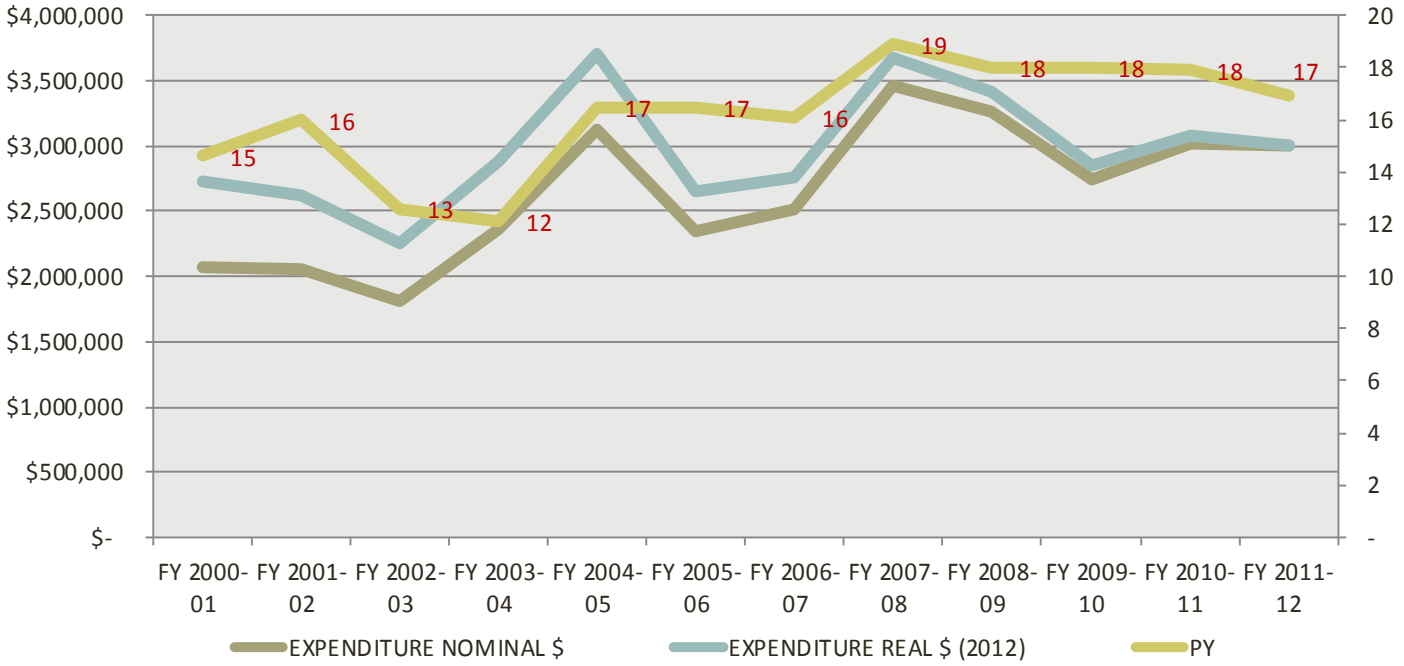


Figure 12: CAFO Program Funded Expenditures and Positions FY 00-01 through FY 11-12

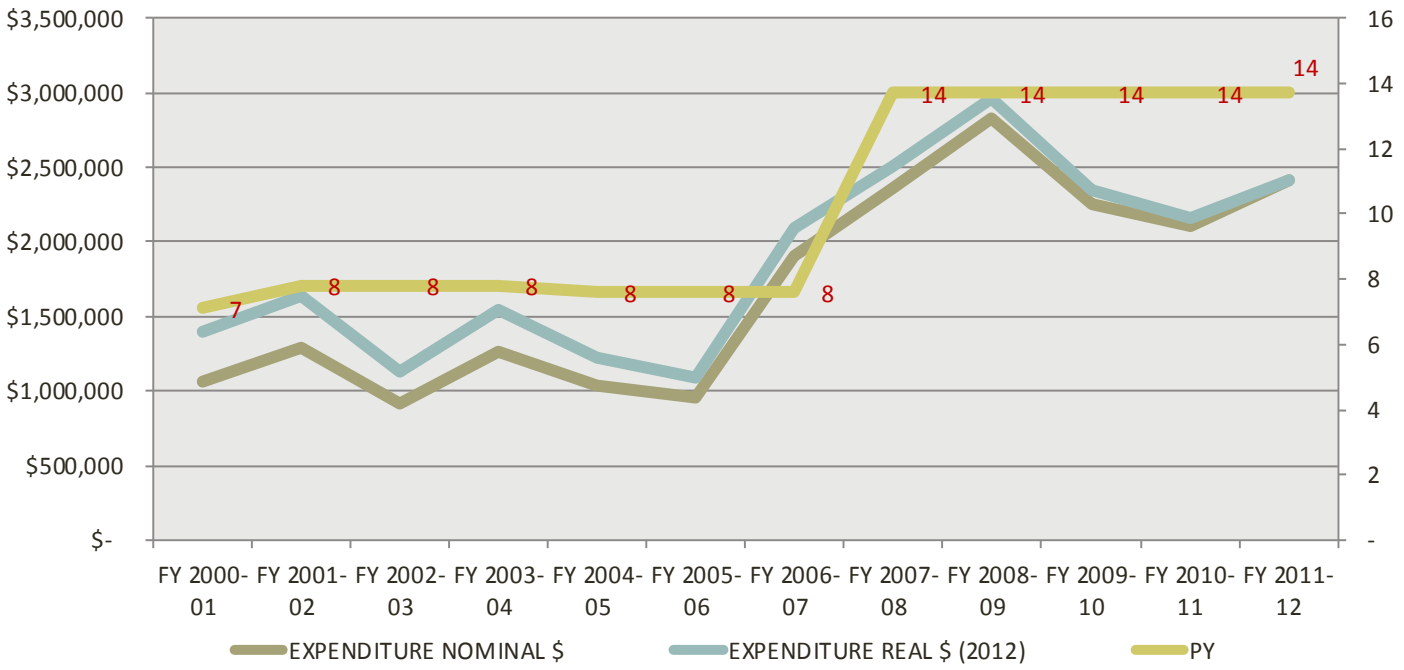


Figure 13: IRRIGATED LANDS Program Funded Expenditures and Positions FY 00-01 through FY 11-12

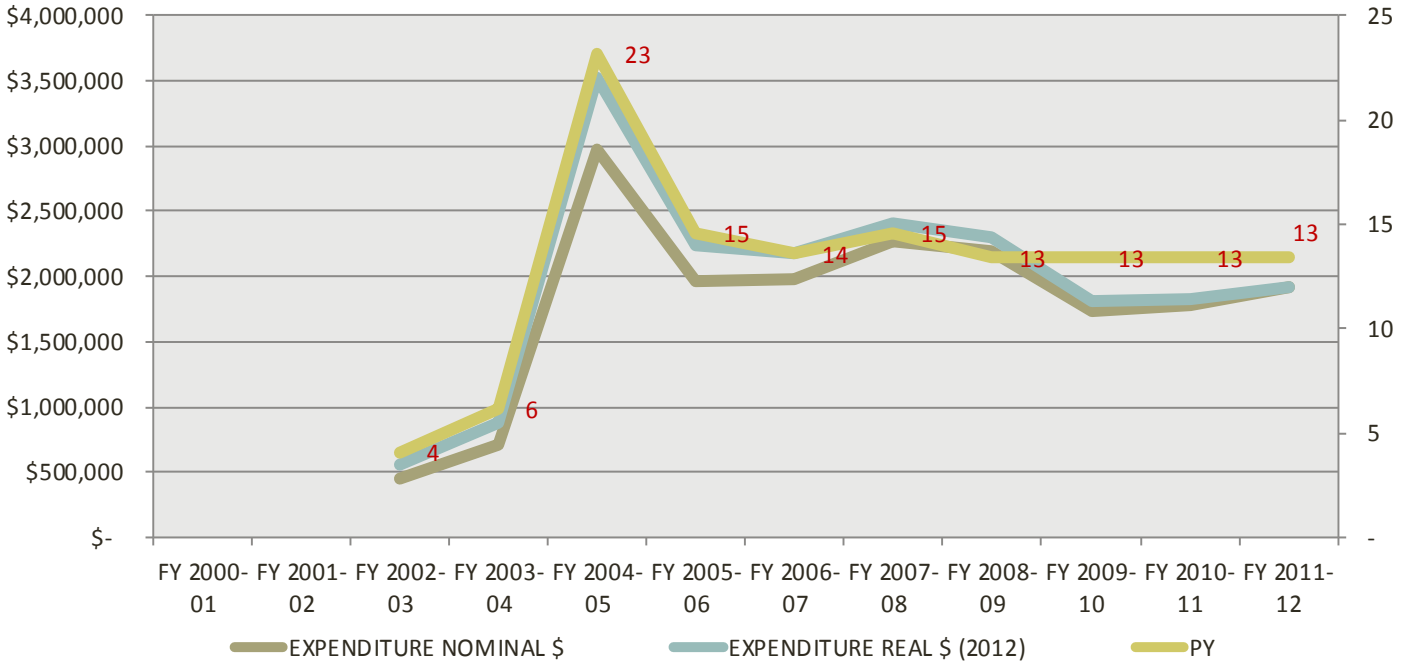
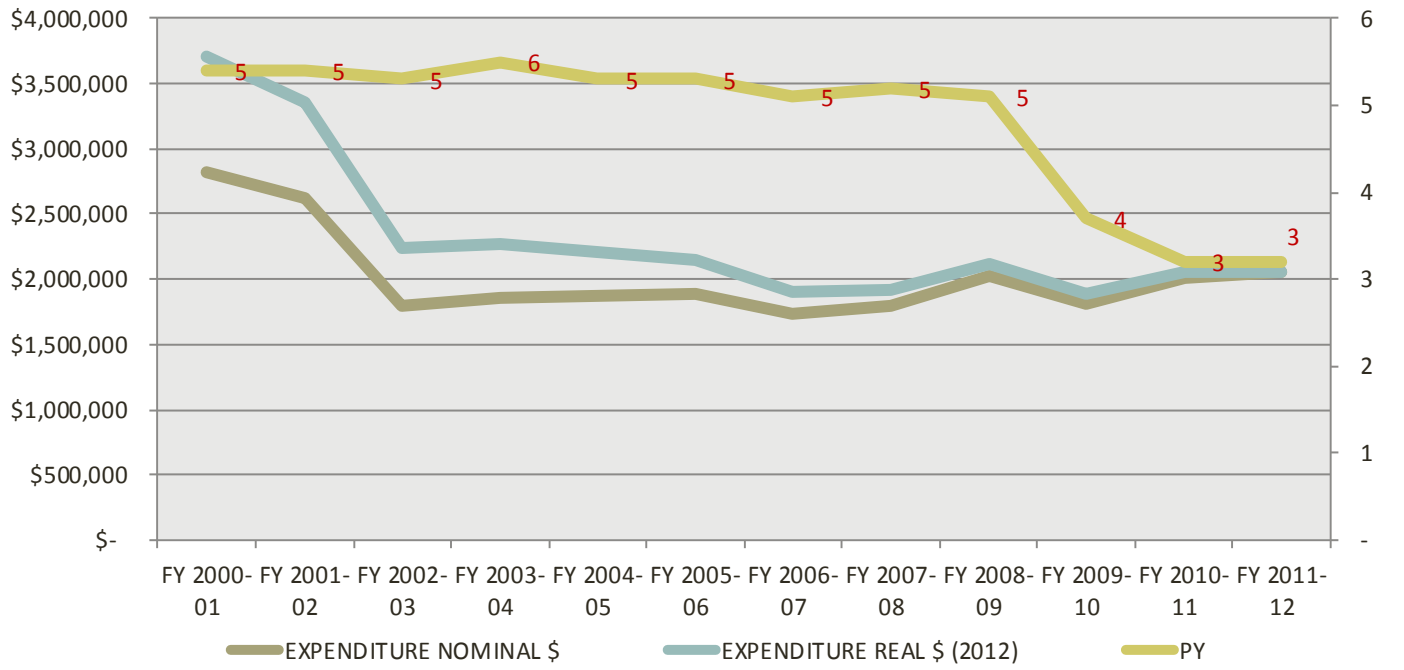


Figure 14: GAMA Program Funded Expenditures and Positions FY 00-01 through FY 11-12



The stormwater program, with some fluctuations has maintained a funding level of around $16 million per fiscal year. In contrast, the Land Disposal program has seen a significant reduction in real dollars of almost 7% since FY 2000-01(in FY 2010-11, the Water Boards began assessing WDR fees, which compensated for some of the decline in program revenues). The enforcement coordination and Timber Harvest programs have both seen consistent growth. As previously described, the recent increase in Timber Harvest expenditure is mainly attributable to costs associated with PALCO litigation. The enforcement program expenditures increased by about 80% since FY 2000-01.

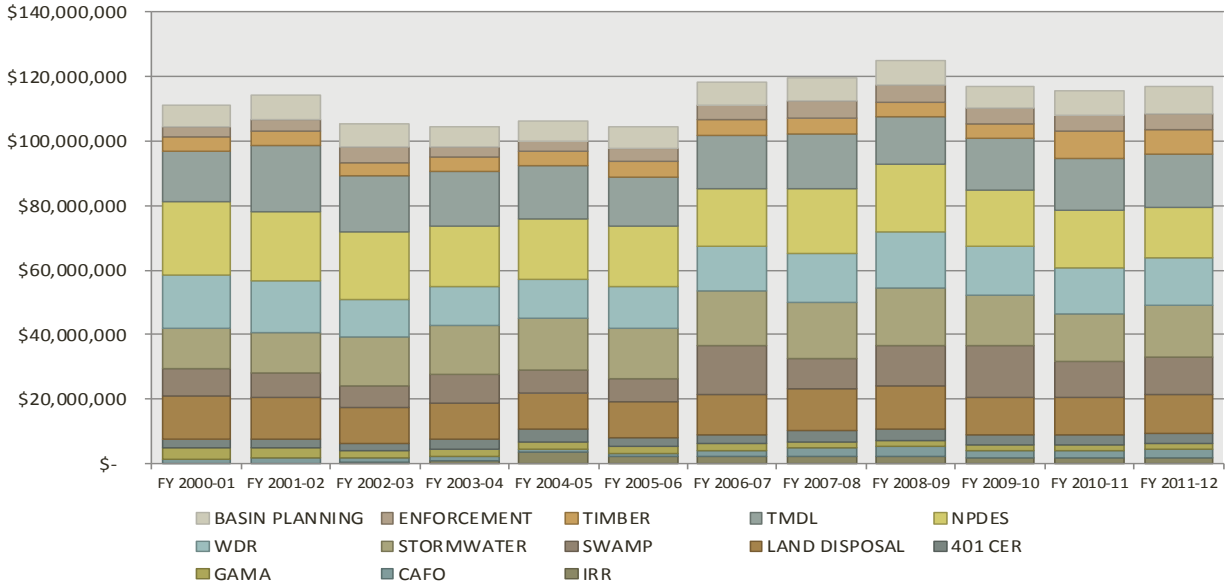
The 401 Certification program resources increased by 10% in real dollars since FY 2000-01 and the CAFO program expenditures have grown by 72% over the 12-year period ranging from FY 2001-02 to FY 2011-12.

The Irrigated Lands Program started in FY 2005-06. The program has seen a reduction in real dollars of 45% of the funding since it peaked in FY 2004-05. Basin Planning saw an increase of 21% and the TMDL program maintained its level of funding since FY 2000-01.

The groundwater monitoring program (GAMA) has lost 451% of funds since FY 00-01 but the SWAMP program has fluctuated year by year, although the funding level for FY 2011-12 is almost 33% greater that it was in FY 200-01.

The following graph shows the evolution of the WDPF funded programs from FY 2000-01 to FY 2011-12 in real (constant, or adjusted for inflation) dollars.

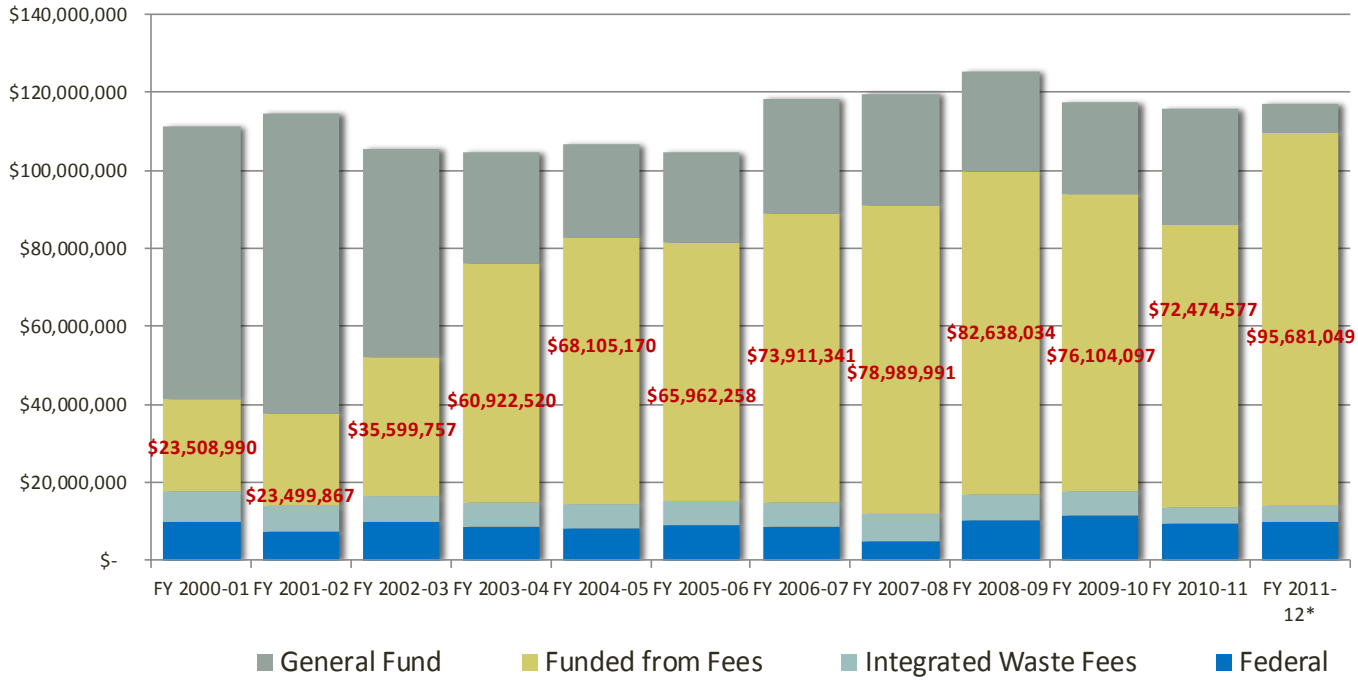
Figure 15: WDPF Program Funded Expenditures FY 00-01 through FY 11-12



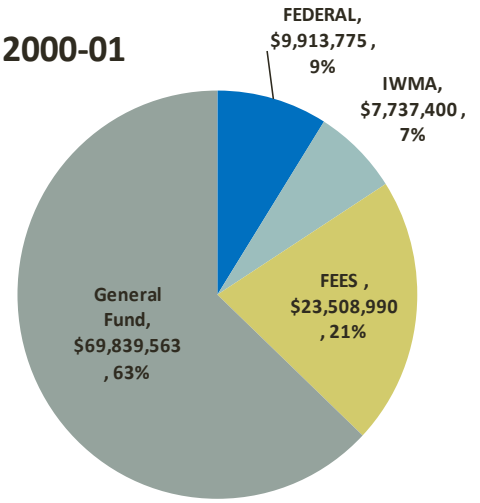
Funding sources and trends for programs included in WDPF

Figures 16 to 22 demonstrate that the sources of funding for WDPF programs has changed significantly overtime. Dollar values are adjusted for inflation.

Figure 16: WDPF Funded Programs by Funds Source FY 00-01 through FY 11-12

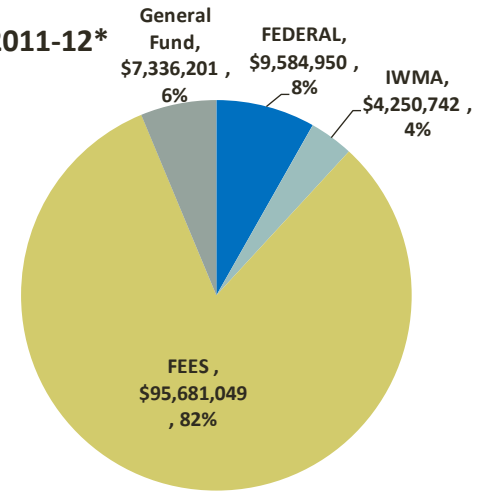


FY 2000-01



In Fiscal Year 2000-01 the source of funds for the Waste Discharge Permit Fund programs included 63% from the General Fund, 21% from fees, 7% from the Integrated Waste Management Account (IWMA) and 9% from federal funds.

FY 2011-12*



In FY 2011-12 the structure of the funding sources has changed significantly to be 82% funded directly by the WDPF fee payers.

Several programs will be funded exclusively by fees in FY 2011-12. These include NPDES Wastewater, NPDES Stormwater and WDR programs.

Figure 17: NPDES Program Funding Sources FY 00-01 through FY 11-12

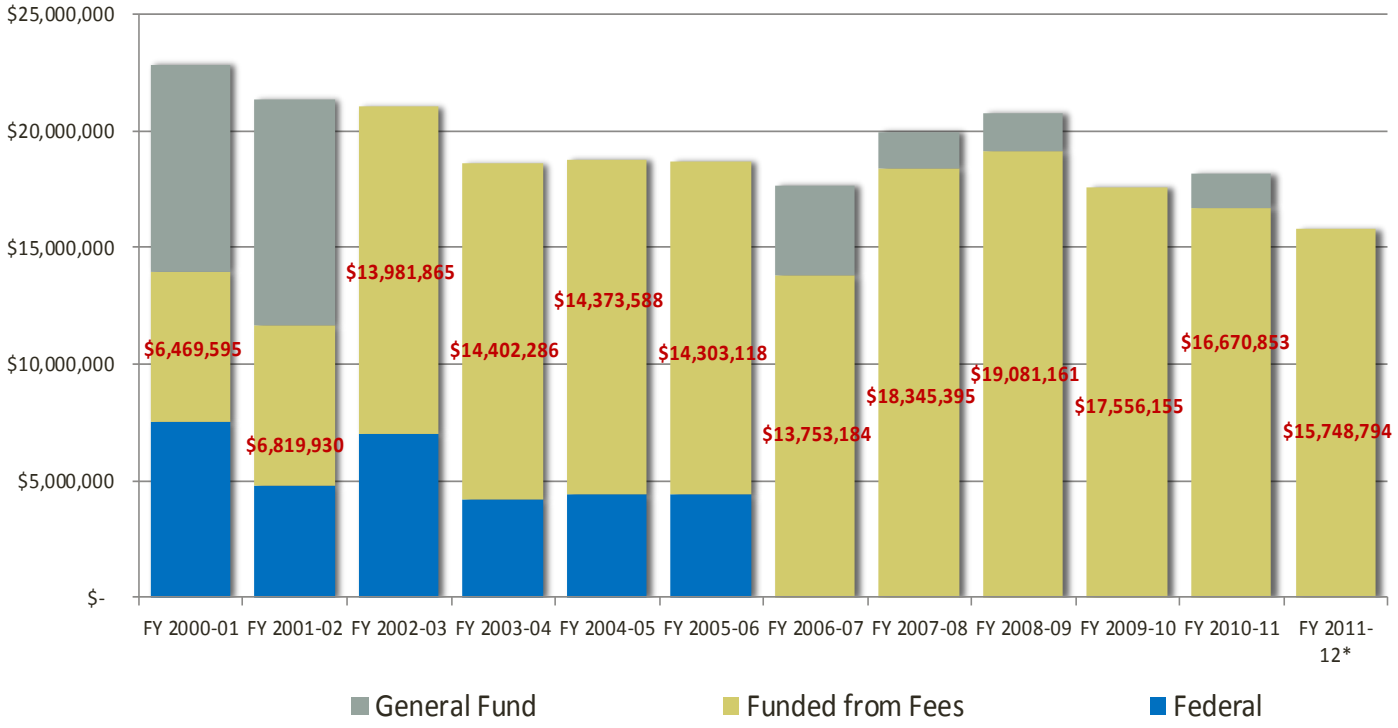


Figure 18: WDR Program Funding Sources FY 00-01 through FY 11-12

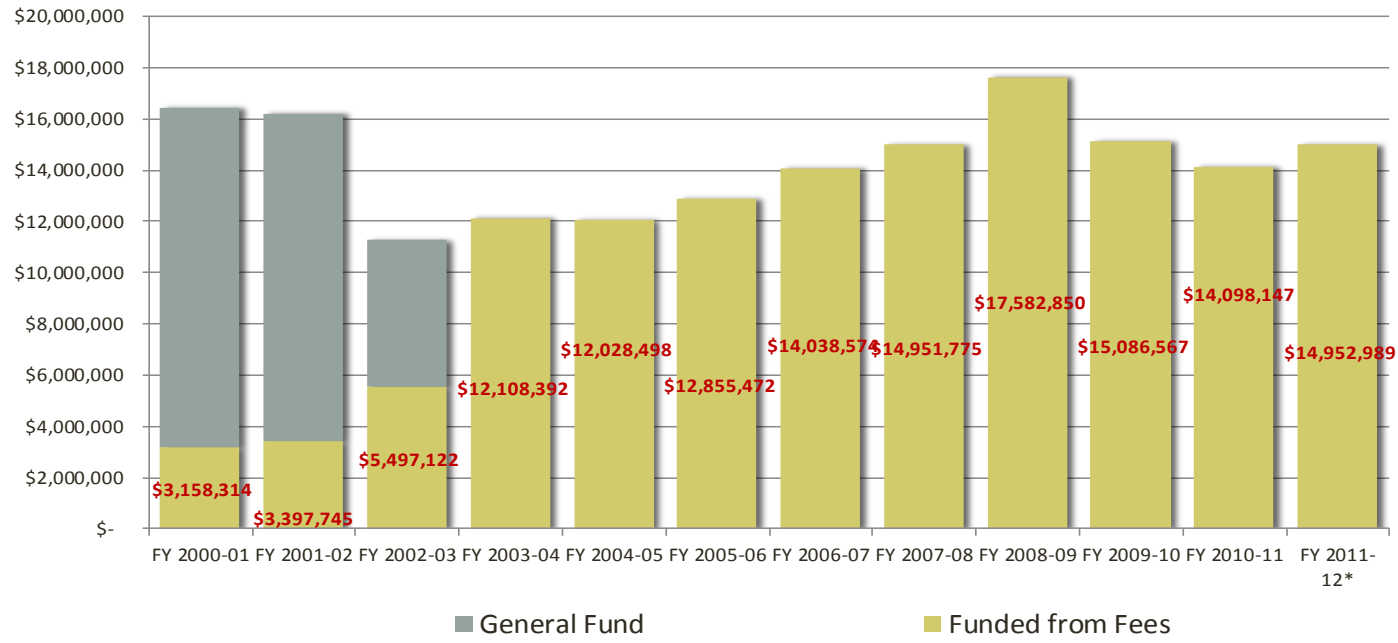


Figure 19: STORMWATER Program Funding Sources FY 00-01 through FY 11-12

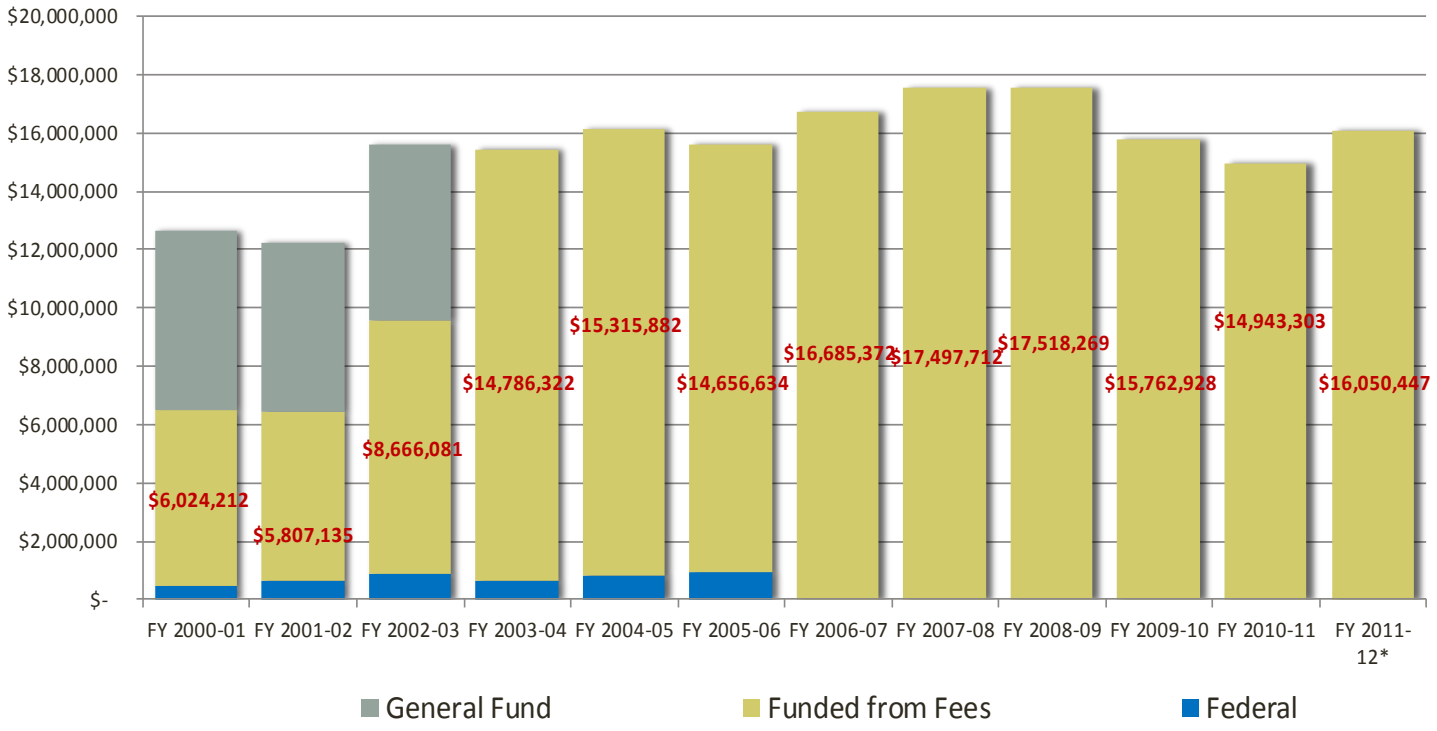


Figure 20: IRRIGATED LANDS Program Funding Sources FY 00-01 through FY 11-12

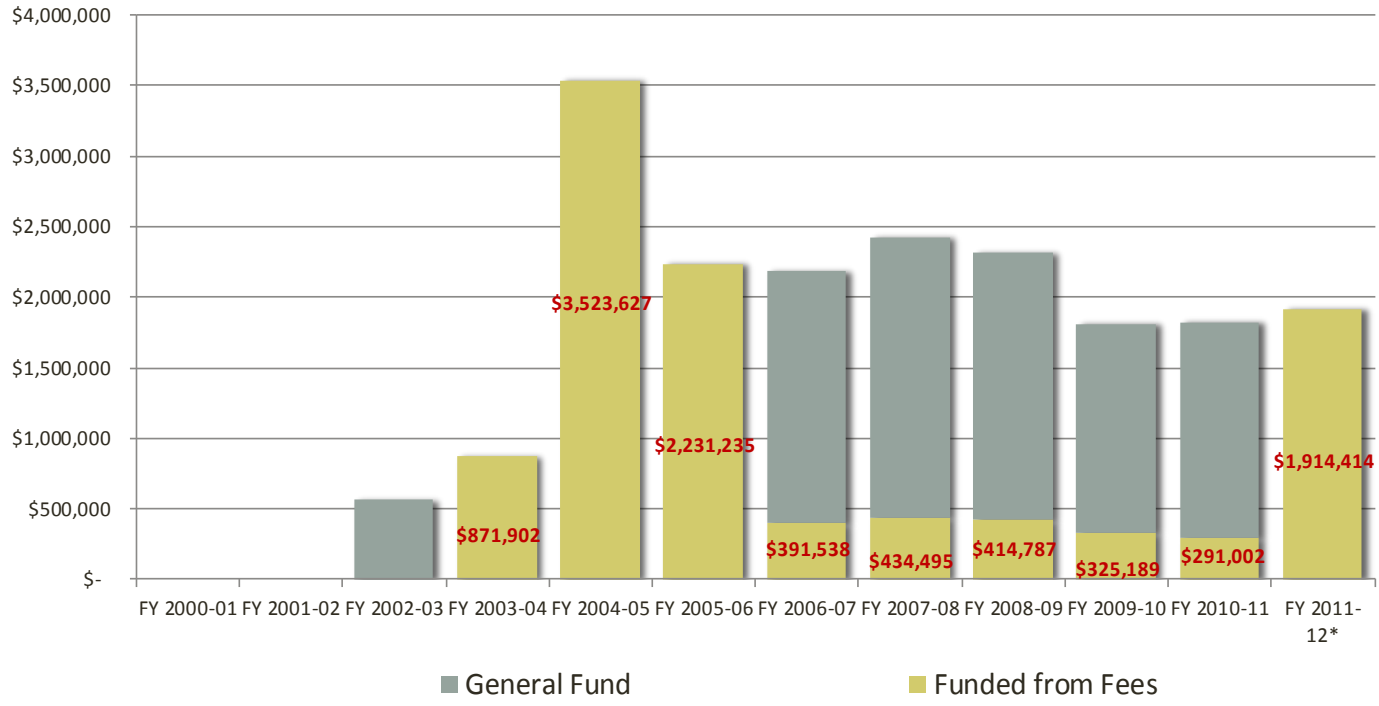


Figure 21: SWAMP Program Funding Sources FY 00-01 through FY 11-12

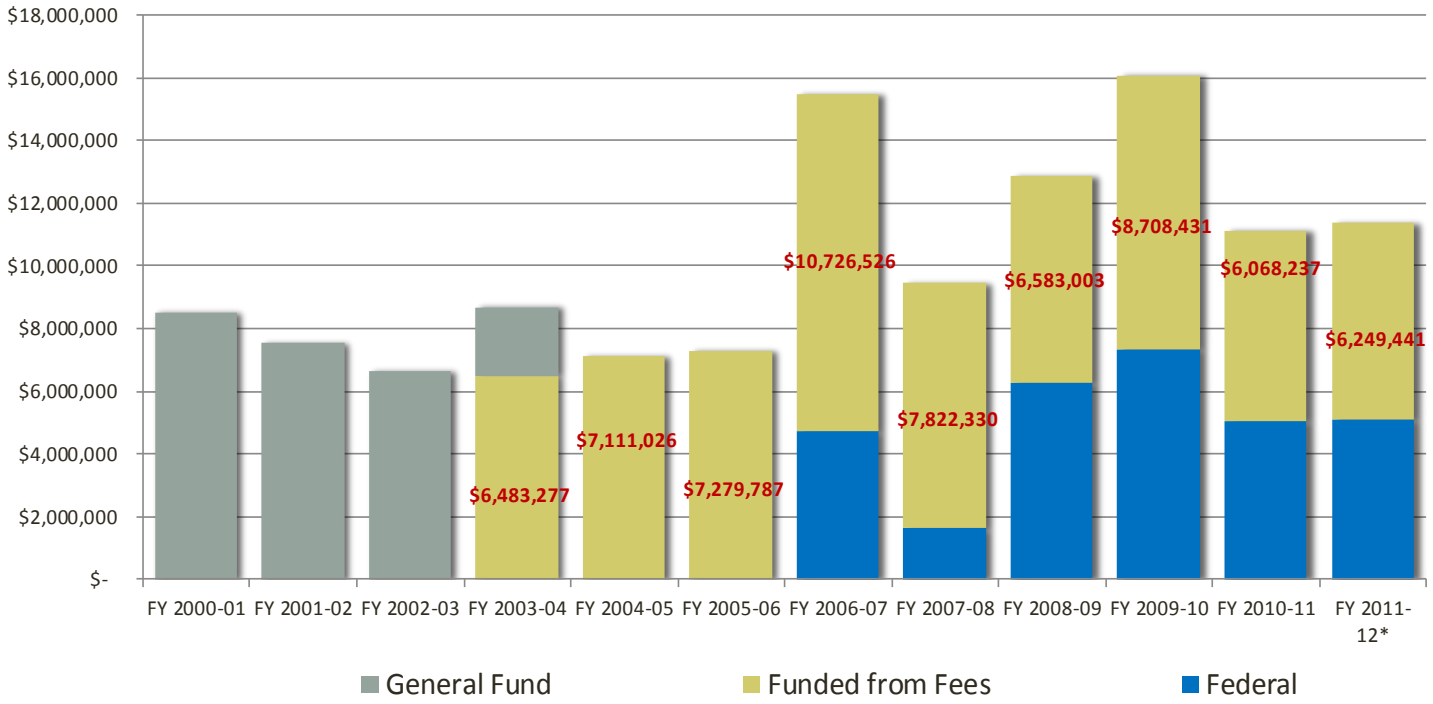
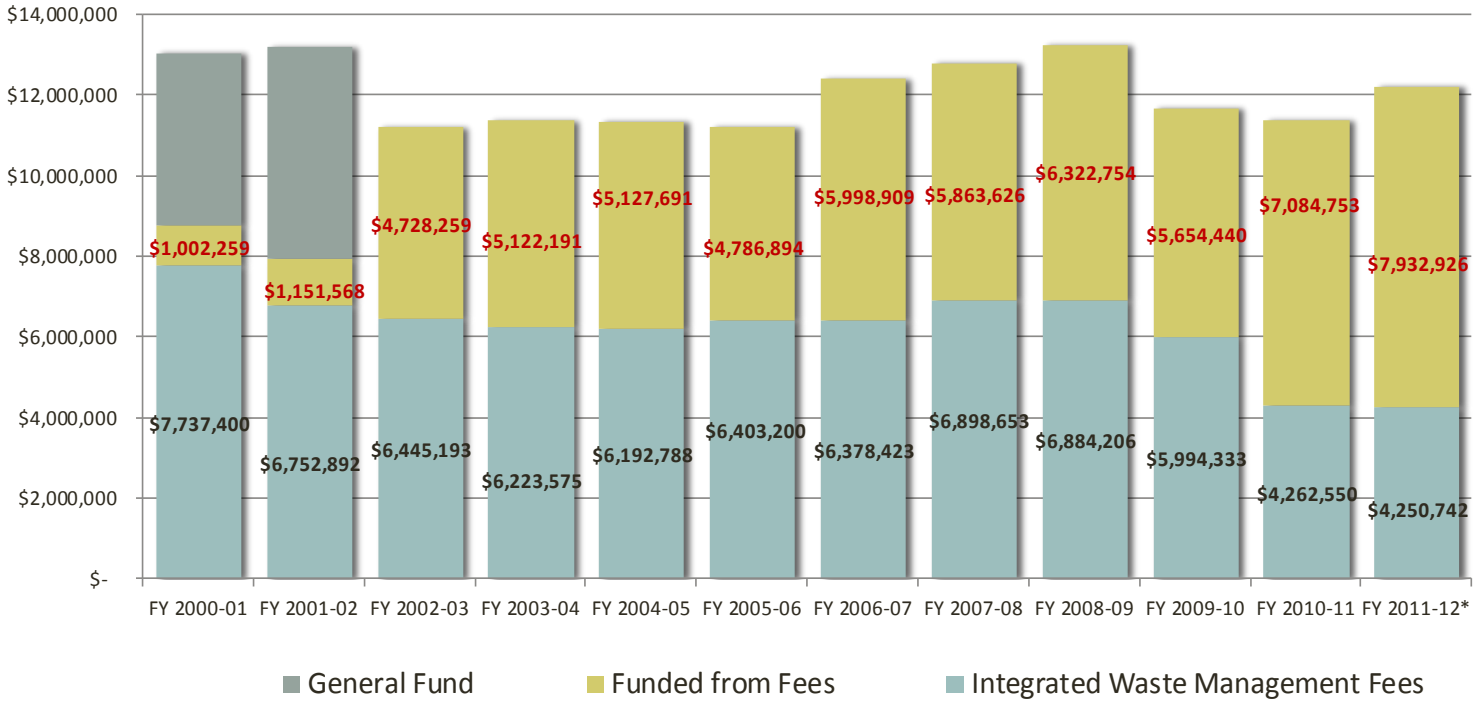


Figure 22: LAND DISPOSAL Program Funding Sources FY 00-01 through FY 11-12



Sources and uses of funds in FY 2010-11

Each program receives funding from a different funding source or mix of funding sources. Some dischargers pay a surcharge for monitoring that supports the SWAMP and GAMA programs. FY 2010-2011 data were used for the following analysis because it is the most recent year for which complete expenditure data were available.

Table 2: Sources of funds for WDPF funded programs in FY 2010-11.

FY 10-11	FROM FEES	FROM FEDS + OTHER	GENERAL FUND	TOTAL REVENUES
NPDES	$ 16,685,868	$ -	$ 980,996	$ 17,666,864
TMDL	$ -	$ 4,113,012	$ 11,490,706	$ 15,603,718
Storm Water	$ 14,314,578	$ -	$ -	$ 14,314,578
WDR	$ 13,789,102	$ 66,334	$ -	$ 13,855,436
Land Disposal	$ 6,929,338	$ 4,258,486	$ -	$ 11,187,824
Basin Planning	$ 1,181,862	$ 688,037	$ 6,932,256	$ 8,802,155
Enforcement Coord.	$ 4,710,356	$ 1,111,014	$ -	$ 5,821,370
Timber Harvest	$ -	$ -	$ 8,159,560	$ 8,159,560
SWAMP	$ 6,466,251	$ 5,255,875	$ -	$ 11,722,126
401 Cert/Wetlands	$ 2,865,022	$ 223,121	$ 175,020	$ 3,263,163
CAFO/DAIRIES	$ 2,107,342	$ -	$ -	$ 2,107,342
Irrigated Lands	$ 293,011	$ -	$ 1,485,854	$ 1,778,865
GAMA	$ 2,009,018	$ -	$ 1,739,281	$ 3,748,299
TOTAL	$ 71,351,749	$ 15,715,879	$ 30,963,673	$ 118,031,301

Table 3: Uses of funds for WDPF funded programs in FY 2010-11.

FY 10-11	DIRECT PROGRAM	OPERATING AND EQ	INDIRECT	TOTAL EXPENDITURES
NPDES	$ 7,881,200	$ 2,935,806	$ 6,849,858	$ 17,666,864
TMDL	$ 7,674,812	$ 1,335,311	$ 6,593,595	$ 15,603,718
Storm Water	$ 7,160,119	$ 1,002,983	$ 6,151,477	$ 14,314,578
WDR	$ 6,750,228	$ 1,305,889	$ 5,799,319	$ 13,855,436
Land Disposal	$ 5,631,997	$ 716,401	$ 4,839,426	$ 11,187,824
Basin Planning	$ 4,083,931	$ 1,211,512	$ 3,506,713	$ 8,802,155
Enforcement Coord.	$ 3,101,038	$ 56,143	$ 2,664,189	$ 5,821,370
Timber Harvest	$ 2,509,298	$ 3,494,451	$ 2,155,811	$ 8,159,560
SWAMP	$ 1,650,812	$ 8,655,957	$ 1,415,357	$ 11,722,126
401 Cert/Wetlands	$ 1,558,419	$ 365,858	$ 1,338,885	$ 3,263,163
CAFO/DAIRIES	$ 1,052,761	$ 150,123	$ 904,458	$ 2,107,342
Irrigated Lands	$ 952,155	$ 8,680	$ 818,030	$ 1,778,865
GAMA	$ 427,386	$ 2,953,734	$ 367,180	$ 3,748,299
TOTAL	$ 50,434,156	$ 24,192,848	$ 43,404,299	$ 118,031,302

Fees collected under each program go to pay for the work conducted directly in the program and to pay for monitoring, for operating expenses and equipment and for indirect costs such administration, personnel, management, information technology, etc.

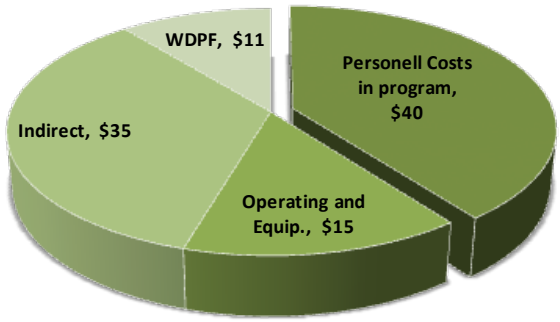
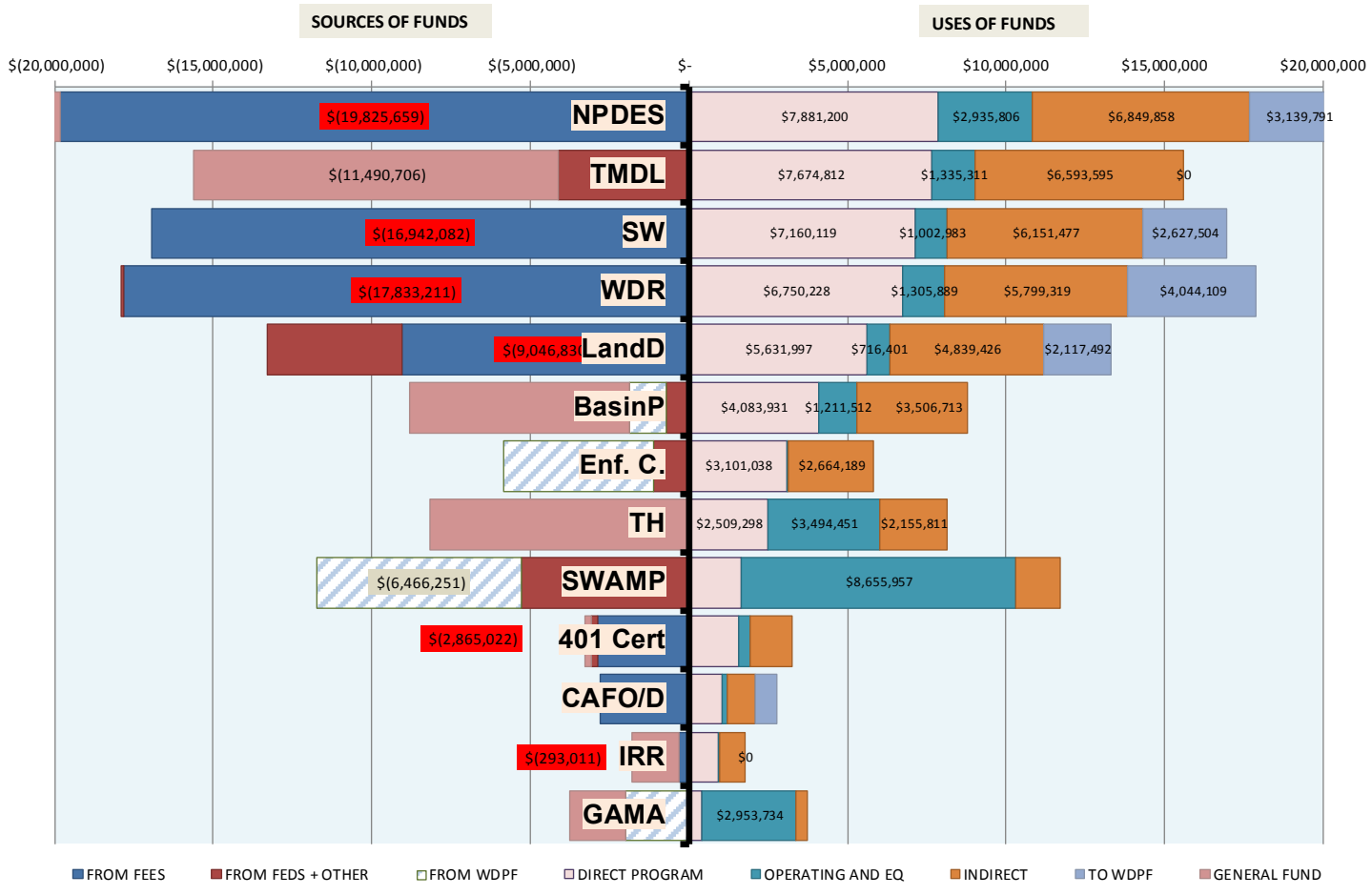


Figure 23 demonstrates the link between the sources and uses of funds by program for FY 2010-11. The left side of the chart shows the amount assessed in fees and other sources of funding that support the WDPF programs.

Figure 23: Sources and Uses of funds by program FY 10-11



NOTES: 1) Funds "from WDPF" are from fees from other programs, 2) "Funds to WDPF" subsidize other programs 3) Funds from General Fund for TMDL, SWAMP, etc in FY 11-12 will come from WDPF

The funds derived from fee payers are shown in dark blue on the left side of the chart.

Figure 23 demonstrates that the sources and uses of funding are generally aligned. In other words, the sources of fees and other funds going to each program can largely be attributed to expenditures within those programs. The NPDES Wastewater, NPDES Stormwater, WDR, Land Disposal, CAFO/Dairies programs receive funding primarily from fees that are designed to pay for program expenditures (direct, operating and equipment[6], and indirect) and related technical support functions such as monitoring, enforcement, and planning (shown in cross hatching as a fund source on the left side of the chart and shown in light blue as fund expense on the right side of the chart). It is important to note that in FY 2010-11 the TMDL and Basin Planning programs still received a significant amount of general funds (shown in light brown on the right side of the chart). As discussed above, commencing in FY 2011-12, these programs will be funded primarily by fees paid into the WDPF for the foreseeable future.

The indirect costs associated with each program are used to support four categories of expenditures that do not directly relate to any one specific program area. Thirty-two percent of the indirect costs support General Administration, these are the costs associated with all Administrative Services. This includes Information Technology, Human Resources, Budgeting, Accounting, Business Services, Legislative and Public Affairs, as well as Executive Management. Our Water Quality Program Management is 24 percent of the indirect and is used for management oversight in water quality program areas. Paid Time Off is another 24 percent and covers all leave that program staff take including vacation, sick, and annual leave. The last piece is 20 percent for various operating expenses, such as facility operations, general office supplies, travel, training, etc. Since these costs are not specific to any one program area, they are prorated to all program areas[7]. These percentages may change from year to year and may be revised in the future based on workload and the needs of the Water Boards.

In addition to the WDPF program resources described earlier in this section, the US EPA provides "in-kind services" primarily to support the NPDES and Stormwater programs. These in-kind services mainly involve contractors conducting compliance inspections, assisting with permit development,

[6] Operating and Equipment Costs includes substantial contract component (e.g., monitoring and laboratories contracts, etc.).

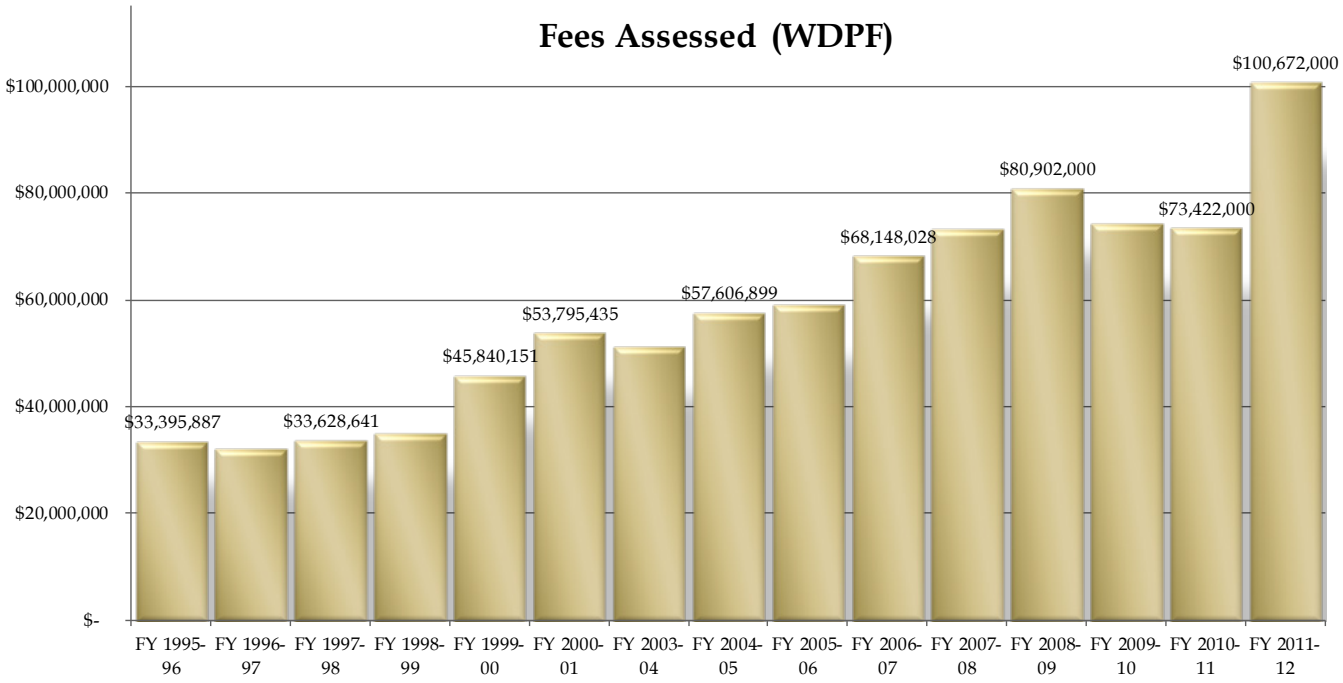
[7] In any given year, certain programs may require relatively higher expenditures of indirect costs such as training, legislative affairs, or management, but the Water Boards' budgeting tools are not currently set up to account for these differences.

and providing program support. In FY 10-11 a total of $4.8 million in contractor support was provided by the US EPA. These funds are not accounted for in the charts and tables contained in this report since they are not formally brought into the state budget. Nonetheless, these resources significantly augment the fees collected to support the NPDES Wastewater and Stormwater programs. Therefore, the extent to which relatively small amounts of fees collected from the NPDES Wastewater and Stormwater programs could be spent on other programs would be more than offset by the in-kind resources provided by US EPA.

Fee structure for FY 2011-12

On September 19, 2011, the State Water Board adopted Resolution No. 2011-0042 approving a revised fee schedule for the Water Boards' core regulatory programs for Fiscal Year 2011-2012. The Budget Act for FY 2011-12 required the Board to increase fees by $27.6 million to reach the budget level. With the approval of the FY 2011-12 fee schedule, the programs included under the Waste Discharge Permit Fund are now funded with fees at approximately 82%. Figure 24 shows the growth in fees assessed[8] since FY 1995-96.

Figure 24: TOTAL FEES assessed FY 00-01 through FY 11-12



The existing annual fee structure for core regulatory programs is designed with the projected fee revenue needed to meet anticipated budgetary expenditures by program. Of the $27.6 million fee increase, $3.1 million or 11.3% is attributable to General Fund shifts in the NPDES and ILRP programs, $18.3 million or 66.5% is attributable to General Funds for TMDL and Basin Planning, and $6.2 million or 22.1% is attributable to a base revenue shortfall. None of the increase is attributable to growth in the WDPF fee funded programs.

[8] Fees assessed do not match fees collected and therefore the numbers provided in this section do not match exactly with information provided in previous sections.

The projected collection of fees by fee category for Fiscal year 2011-12[9] is displayed in Table 4. This projection relies upon assumptions regarding the number of fee payers, which varies significantly from year to year for some programs.

Table 4: Fees Collected by Program and Category for FY 2011-12.

	Base Fee	Pretreatment Surcharge	Category Surcharge	Monitoring Surcharge	Total Fee Amount	Number of Fee Payers
NPDES	$23,491,066	$850,000	$715,000	$4,887,351	$29,943,417	1,570
Storm Water	$18,504,626			$3,855,854	$22,360,480	14,074
WDR	$20,169,622	$130,000		$1,852,446	$22,152,068	4,501
Land Disposal	$10,966,343		$72,000	$1,009,401	$12,047,744	678
CAFO	$3,115,654			$296,239	$3,411,893	1,623
Irr Lands	$2,997,877			$0	$2,997,877	16
Grand Total	**$79,245,188**	**$980,000**	**$787,000**	**$11,901,291**	**$92,913,479**	**22,462**

By Regional board the distribution of fees is provided in Table 5.

Table 5: Fees Collected for WDPF funded programs in FY 2011-12 by Regional Board.

Regional Board	NPDES	Storm Water	WDR	Land Disposal	CAFO	Irr Lands	Grand Total
1	$407,561	$867,121	$2,149,922	$527,061	$2,343		$3,954,008
2	$5,308,070	$3,546,760	$1,578,301	$1,012,541	$4,102		$11,449,774
3	$2,283,635	$1,062,770	$1,197,611	$638,021	$10,741	$218,012	$5,410,790
4	$10,548,200	$5,846,474	$2,621,312	$604,175	$1,563	$47,854	$19,669,578
5F	$546,919	$1,314,443	$5,031,465	$1,512,287	$1,896,422		$10,301,536
5R	$493,703	$397,404	$989,952	$478,445	$14,552		$2,374,056
5S	$3,269,877	$2,879,650	$3,734,230	$1,846,477	$1,135,775	$2,732,011	$15,598,020
6A	$33,030	$95,935	$531,317	$82,868			$743,150
6B	$93,612	$527,394	$1,156,866	$1,310,947	$30,273		$3,119,092
7	$220,003	$585,295	$1,164,090	$1,685,820	$66,104		$3,721,312
8	$2,828,535	$2,990,307	$933,718	$819,178	$240,644		$7,812,382
9	$3,910,272	$2,246,927	$1,063,284	$1,529,924	$9,374		$8,759,781
Grand Total	**$29,943,417**	**$22,360,480**	**$22,152,068**	**$12,047,744**	**$3,411,893**	**$2,997,877**	**$92,913,479**

The method of assessing fees for each category of fee payers depends on the program and type of discharge. Fees for Waste Discharge

[9] The total amount of projected fees for Fiscal year 2011-12 do not include revenue received from Stormwater and 401 CER (dredge and fill) program applications.

Requirements are calculated based on threat and complexity ratings, NPDES are based on categories and volume of permitted flow. Confined Animal Facilities fees are based on permitted animal count, etc.

For example, the NPDES Wastewater program fee schedule is based on a combination of threat/complexity for industrial dischargers and on the volume of a facility's permitted flow for public wastewater treatment facilities.

The distribution of fees under the NPDES Wastewater program is provided on Table 6 and Table 7.

Table 6: Fees Collected for NPDES Wastewater in FY 2011-12.

	Fee Amount	# Dischargers	Average Fee
Category 1	$2,884,470	272	$10,605
Category 2	$1,172,374	179	$6,550
Category 3	$1,157,158	636	$1,819
Flow (mgd)	$24,651,015	478	$51,571
Grand Total	**$29,865,017**	**1,565**	

Of the 478 dischargers that are charged based on flow under the NPDES program, 60% of the fees assessed are collected from 32 dischargers.

Table 7: Fees Collected for NPDES Wastewater based on flow in FY 2011-12.

FEE AMOUNT	Flow Based Dischargers	Average Fee	TOTAL COLLECTED	PERCENTAGE OF FLOW BASED FEES
$0-$5,000	205	$2,811	**$576,275**	*2.3%*
$5,000-$25,000	127	$11,298	**$1,434,801**	*5.8%*
$25,000-$50,000	52	$36,088	**$1,876,577**	*7.6%*
$50,000-$100,000	38	$68,173	**$2,590,570**	*10.5%*
$100,000-$250,000	24	$140,129	**$3,363,089**	*13.6%*
$250,000-$500,897	32	$462,803	**$14,809,703**	*60.1%*
TOTAL	478	$51,571	**$24,651,015**	

Allocation of personnel resources: A comparison of survey results to budget allotments

During November and December of 2011, the Office of Research Planning and Performance surveyed State and Regional Water Board supervisors to collect information regarding the estimated time staff dedicated to each program during FY 2010-11. One of the goals of the survey was to evaluate the degree to which the amount of PYs budgeted for each program is aligned with the PYs actually worked in each program. The survey results must be used with caution, however, because they are based on staff estimates. During the process of compiling the survey results it was also apparent that there were inconsistencies in how time was attributed to each program due to differences in how staff interpreted what should be included in each program. Additionally, survey accuracy was probably limited by staff's ability to recall the amount of time their subordinates worked in each program during FY 2010-2011. Therefore, additional analysis must be conducted to validate the survey prior to acting on any conclusions that can be gleaned from the results. Despite these limitations, the results suggest that the personnel resources dedicated to each program generally corresponded with budgeted amounts. The survey results also suggest the 401 Water Quality Certification and the Irrigated Lands Regulatory programs are receiving more PY resources than are budgeted. This could be an indication that these two programs are "borrowing" resources from other fund sources.

Figure 25: Personnel Year by program – Budgeted vs. Surveyed. FY 10-11

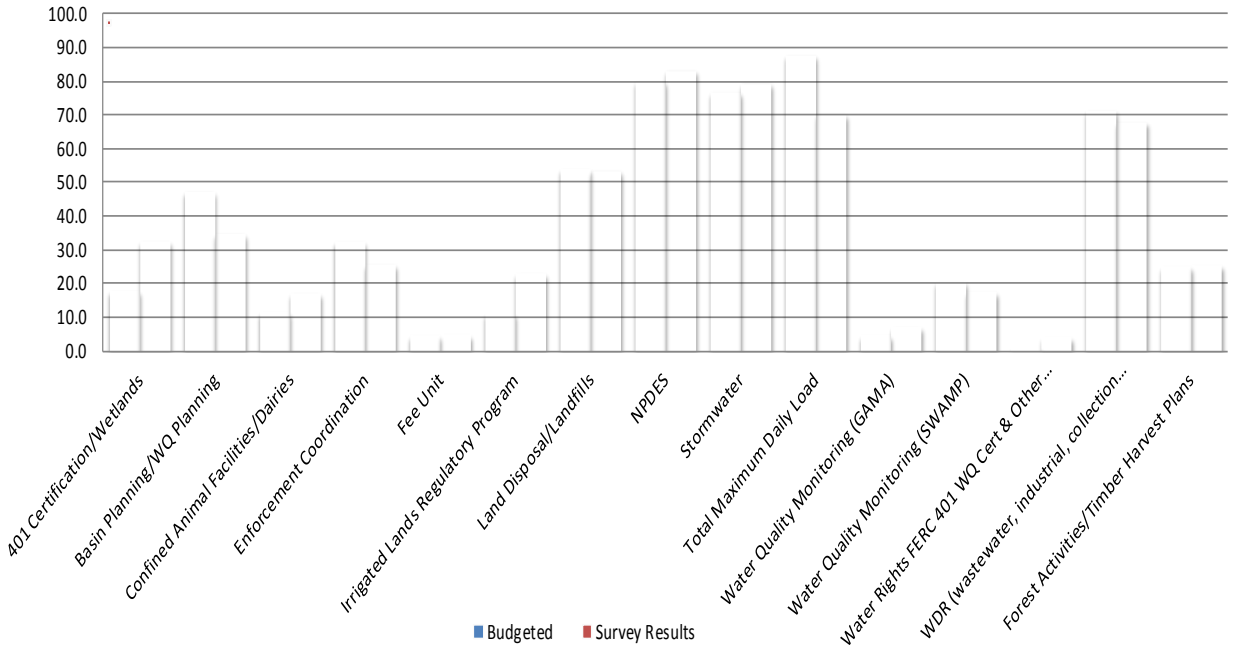
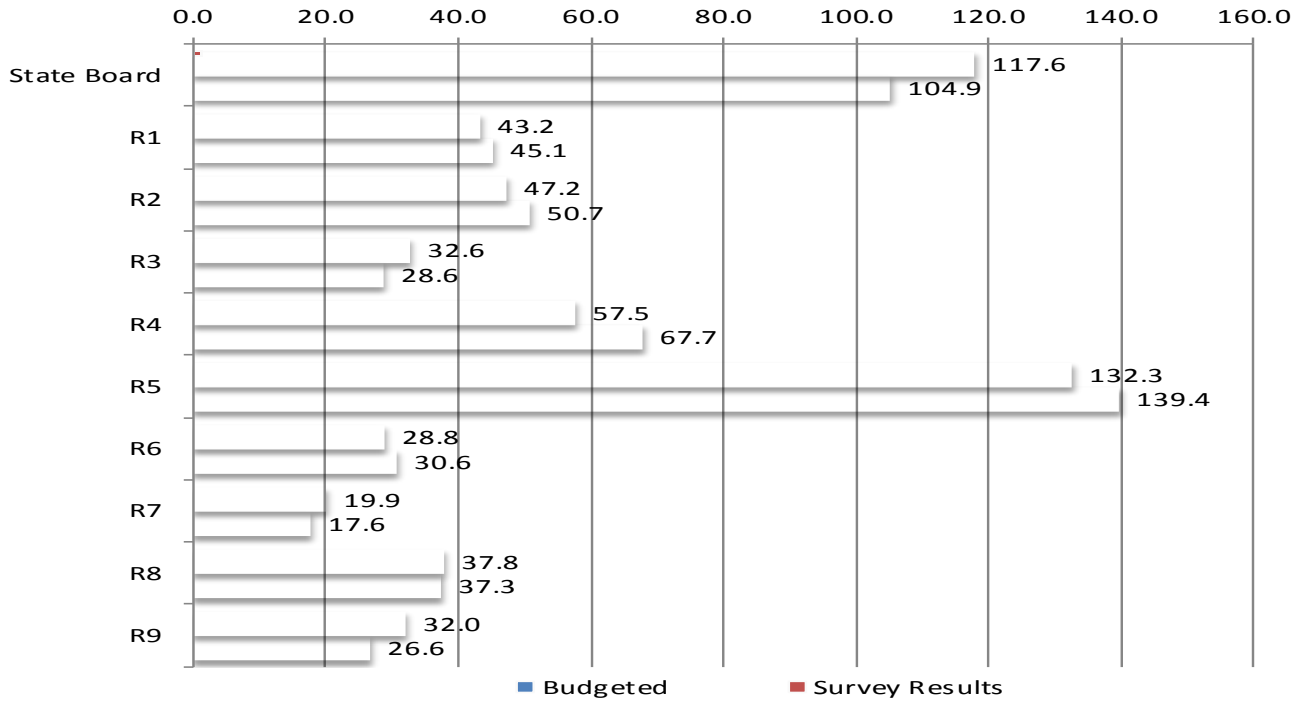


Table 8 summarizes the information collected in the survey by program and compares it with the budget numbers. The total number of personnel years reported in the survey is almost identical to the total number of personnel years reported.

Table 8: Personnel Year by program Budgeted vs. Surveyed. FY 2010-11

WDPF PROGRAMS (Personnel Years)	Reported/ Planned	Survey Results	Difference
NPDES	80.1	83.3	-3.1
Stormwater	76.9	79.4	-2.5
Total Maximum Daily Load	87.8	70.2	17.6
WDR (wastewater, industrial, collection systems)	71.5	68.0	3.5
Land Disposal/Landfills	54.2	53.5	0.7
Basin Planning/WQ Planning	47.4	34.9	12.5
401 Certification/Wetlands	18.1	32.7	-14.6
Enforcement Coordination	32.7	25.8	6.8
Forest Activities/Timber Harvest Plans	25.3	25.7	-0.4
Irrigated Lands Regulatory Program	11.4	23.2	-11.8
Water Quality Monitoring (SWAMP)	20.8	17.7	3.1
Confined Animal Facilities/Dairies	11.8	17.3	-5.5
Water Quality Monitoring (GAMA)	4.9	7.4	-2.5
Fee Unit	4.8	5.0	-0.2
Water Rights FERC 401 WQ Cert & Other 401 WQ Cert	1.2	4.4	-3.2
Total	**548.9**	**548.5**	**0.3**

Figure 26: WDPF Personnel Year (PY) by organization – Budgeted vs. Surveyed. FY 10-11



An analysis by organization by program also reveals an uneven distribution of resources. The following graphs reveal those programs with greater variation.

Figure 27: IRRIGATED LANDS Personnel Year (PY) by organization – Budgeted vs. Surveyed. FY 10-11

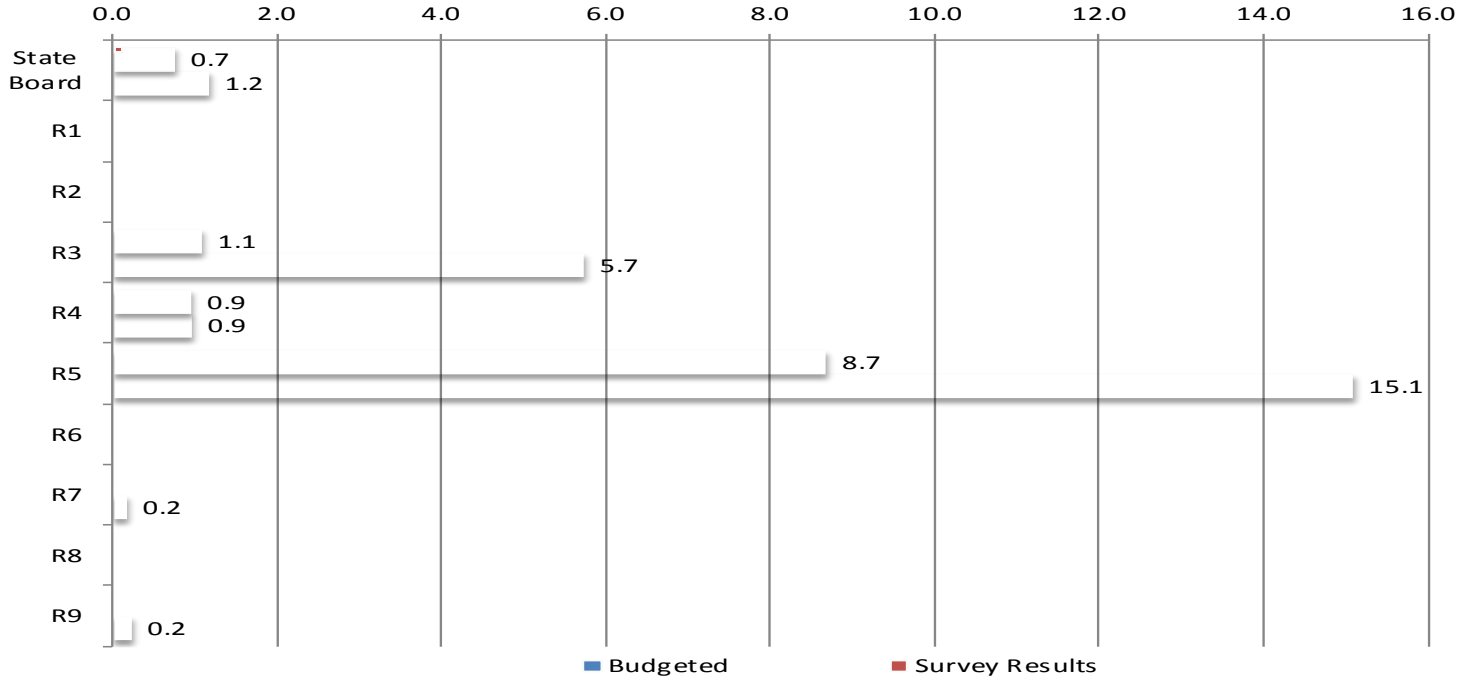


Figure 28: TMDL PROGRAM Personnel Year (PY) by organization – Budgeted vs. Surveyed. FY 10-11

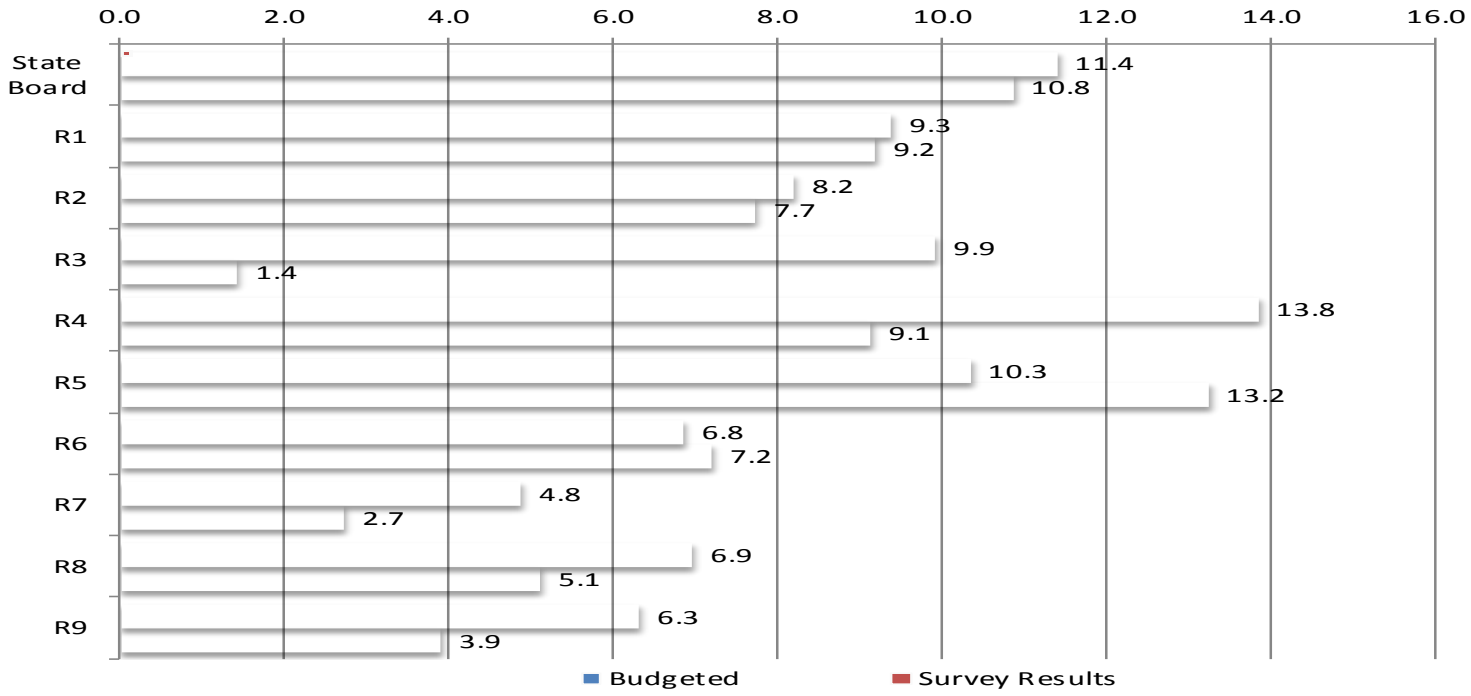


Figure 29: WDR Personnel Year (PY) by organization – Budgeted vs. Surveyed. FY 10-11

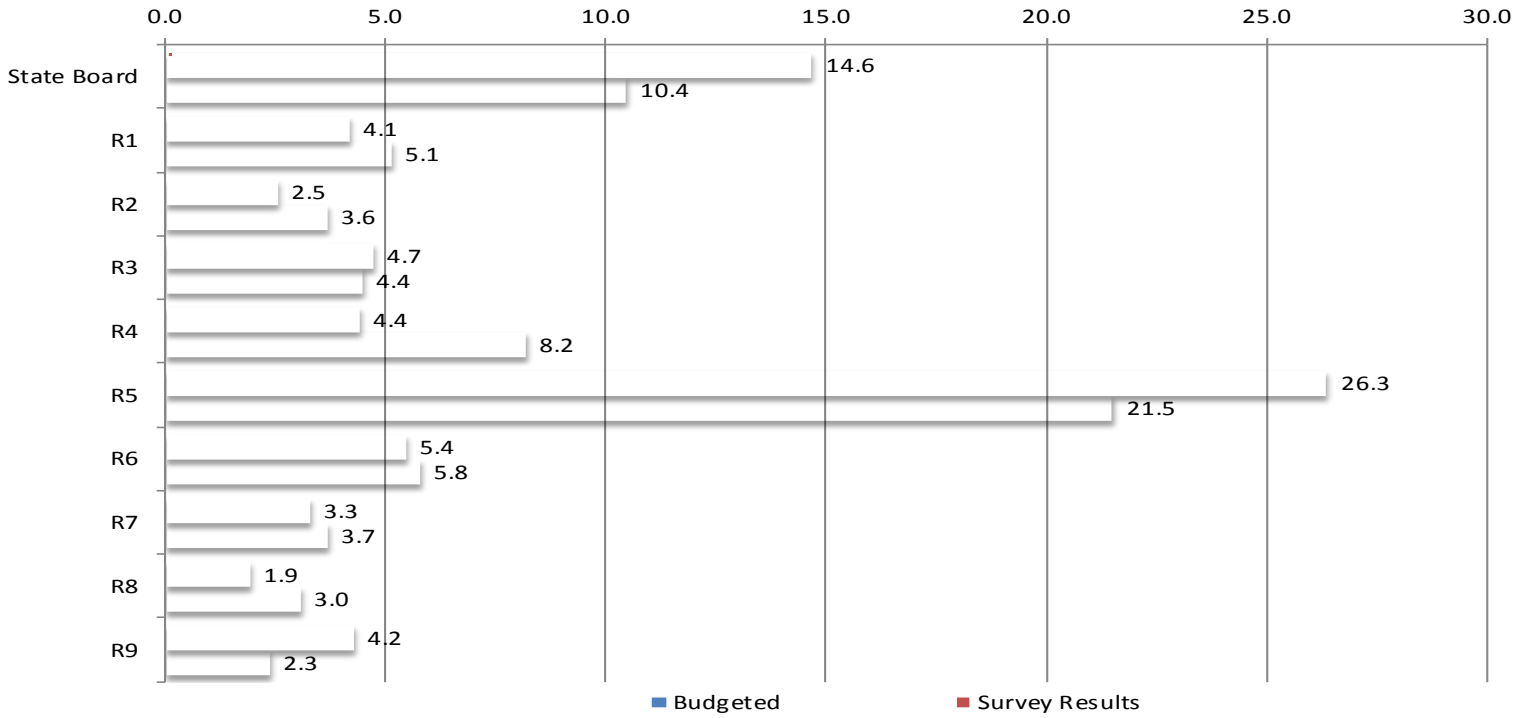
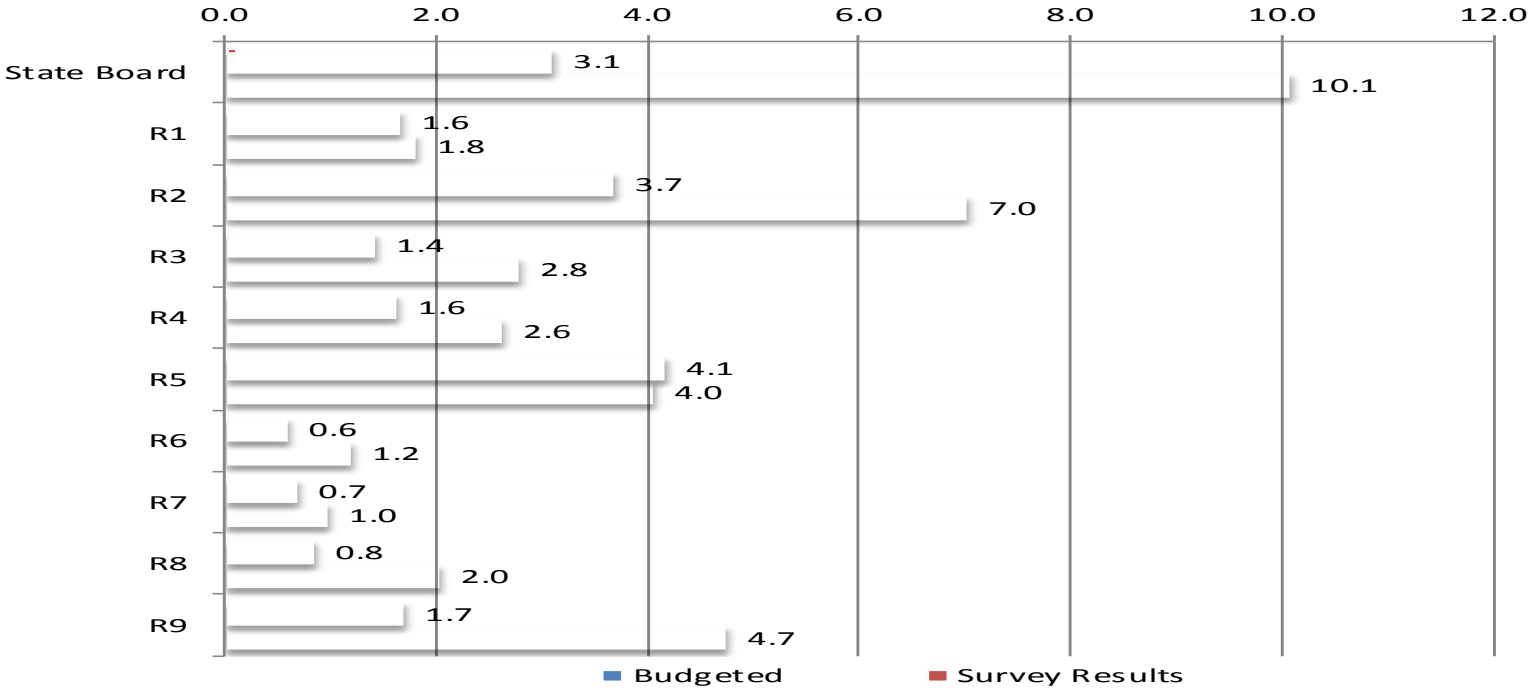


Figure 30: 401 CER and 401 FERC PROGRAM Personnel Year (PY) by organization – Budgeted vs. Surveyed. FY 10-11

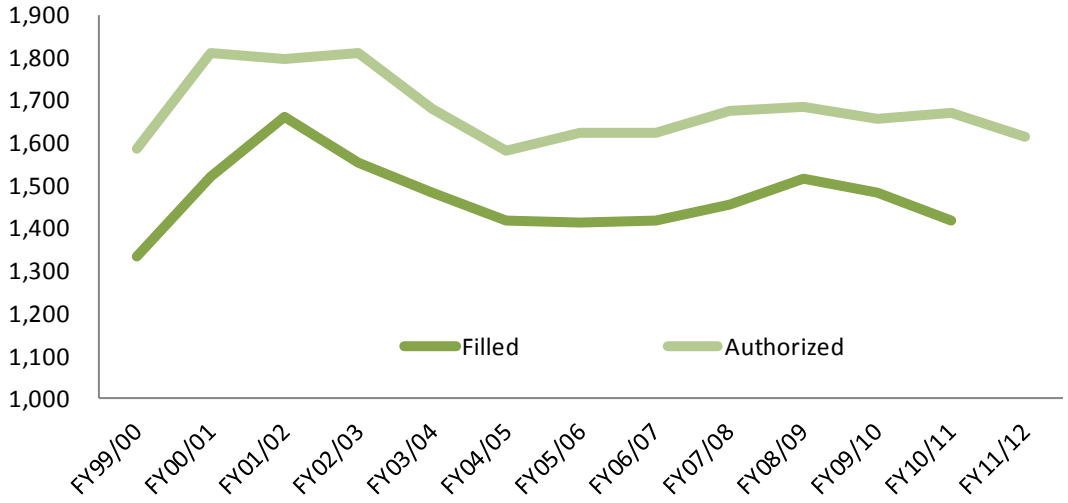


Section 3

3. Setting Priorities for Water Quality Programs

In 2000, the State Water Board completed a needs assessment to determine the resources needed to fully fund its core regulatory programs (NPDES-wastewater, NPDES-Stormwater, WDR, Land Disposal, and 401 Water Quality Certification). The overall conclusion of the Needs Assessment was that Water Board resources were insufficient to meet the workload needs of its core regulatory programs. In FY 2001-2002, the Water Boards had approximately 1,660 positions and by Fiscal Year 2010-2011 the number of positions dropped to approximately 1,416, a decrease of almost 15 percent (Figure 31).

Figure 31: Water Board Positions FY 99-00 through FY 11-12



Source: CA Dept. of Finance historical budget documents

The Water Boards set three main types of priorities. First, priorities are established by allocating resources at the program level. This generally reflects the amount of revenue generated by each program. Second, priorities are further refined by assigning available resources and/or setting workload targets for various activities within each program (e.g., permitting, inspecting, compliance checking, etc.). These activity-based priorities will reflect levels of activity required by law, contained in grant commitments or the relative importance to each region and program manager. Lastly, resources are dedicated to priority projects that are important to the State and Regional Water Boards. These priority projects may directly or indirectly support the Water Boards' core work activities. If

program resources are focused on priority or special projects, those resources are not available to perform core workload functions.

Legislative mandates also result in new priorities that do not always come with sufficient resources. Recent examples include development of the North Coast Instream Flow Policy (AB 2121, 2004), Nitrate Pilot Study (SBX2 1, 2008), and Delta Flow Criteria (SB 1, 2009). Such legislative mandates often result in a redirection of staff resources from other priority work. Thus, Water Board priorities are set both internally and externally.

Ideally, the allocation of resources should be set to address the State's most important water quality and water allocation concerns. In some cases, however, resource allocation is constrained by funding source. As described in Section 2, the Water Boards have a diverse funding portfolio. Historically, the funding provided to support the Water Boards has been tied to specific purposes, which does not allow full flexibility to assign resources to priorities. There is also an element of "memory" in the Water Boards' program budgets, since funding levels are largely carried forward from prior year budgets. This is due, in part, to the need to maintain stability within each program. In some cases, requests for additional resources or to move existing resources to support priority programs or projects have been made, however, these requests can be approved or denied based on factors other than need. While the Water Boards can focus resources on priorities, funding constraints and other external factors have historically played a major role in the way we have applied our available resources. The end result is that our resource allocation mix may not always reflect the most important water quality or water allocation concerns.

Over 70 percent of Water Board funds are expended on ten programs. These expenditures suggest that Water Boards two highest priority programs are the Underground Storage Tank (UST) and Site Cleanup programs, neither of which are funded by the WDPF. NPDES and Total Maximum Daily Load (TMDL) activities are the two highest funded WDPF programs, while 401 Water Quality Certification, Confined Animal Facilities, and Irrigated Lands activities are among the WDPF-funded programs with fewest resources (Table 9).

Table 9: FY 10-11 Expenditures by Program (in millions)

Program	WDPF Funding	Expenditure[1]
Underground Storage Tanks		$38.3
Site Cleanup		$17.8
NPDES Wastewater	✓	$17.7
Cleanup & Abatement Account[2]		$17.4
Total Maximum Daily Load	✓	$15.6
NPDES Stormwater	✓	$14.3
WDR (Wastewater to land, industrial, collection systems)	✓	$13.9
Water Quality Monitoring (SWAMP)	✓	$11.7
Land Disposal/Landfills	✓	$11.2
Water Rights Program		$10.1
Basin Planning/WQ Planning	✓	$8.8
Forest Activities/Timber Harvest Plans	✓	$8.2
CW State Revolving Fund		$8.1
Department of Defense/Navy Cost recovery		$6.7
Enforcement Coordination	✓	$5.8
Nonpoint Source		$5.3
Water Quality Monitoring (GAMA)	✓	$3.7
401 Certification/Wetlands	✓	$3.3
Special Projects		$2.5
Bond Programs (State Operations/Staff)		$2.5
Confined Animal Facilities/Dairies	✓	$2.1
Irrigated Lands Regulatory Program	✓	$1.8
Other Programs	✓	$6.5
	Total	**$233.3**

[1] Based on actual expenditures for FY 2010/2011-includes personnel, operating and equipment, support/IDC attributed to each program-does not include pass through money (e.g., UST claim payments, grants, and loans etc.); [2]Includes $11 million in Cleanup and Abatement service payments.

As discussed in Section 2, resource deployment is largely in alignment with our funding sources. In other words, work in each program is generally proportional to program funding levels. Figure 27 suggests, however, that certain WDPF-funded programs may rely on resources from other programs. This may be an indication that these programs are underfunded or unsustainable over the long-term. The clearest examples are the Irrigated Lands Regulatory Program (ILRP) and the 401 Water Quality Certification Program. Water Board resources might be allocated differently if there was more flexibility to shift resources across programs. For example, additional resources might be re-directed to the ILRP in regions where agricultural practices have been identified as a significant water quality concern.

A number of tools exist to help evaluate the alignment of resources and priorities. For example, the Surface Water Ambient Monitoring Program (SWAMP) and Groundwater Ambient Monitoring and Assessment Program

(GAMA) data provide information to help identify existing and emerging water quality priorities. The Integrated Report (CWA Section 303(d) List / 305(b) Report) provides useful information on constituents of concern and causes for impairment in each region of the State. A review of the 2010 Integrated Report, for example, reveals that bacteria or pathogens are among the top ten most frequently listed causes of impairment in every region of the state (Appendix B). Nutrients and sediment are also frequently listed impairments in most regions. Moreover, agriculture shows up in the top five most frequent causes of impairment in eight of the nine regions and as the number one cause of impairment statewide. Yet the IRLP is one of the Water Boards' lowest funded programs. Other commonly listed causes of impairment are urban runoff, habitat modification, and municipal wastewater.

The Water Boards employ multiple priority-setting mechanisms. The State Water Board establishes priorities through its strategic planning process and through formal priority-setting discussions that occur periodically during Board meetings. The Regional Water Boards identify priorities for inclusion in the annual Accomplishments Reports. Basin planning priorities are established as part of the triennial review process. The Water Boards also develop workplans that specify workload commitments for the NPDES-wastewater program, NPDES-stormwater program, TMDL program, and for water quality monitoring activities. Informal priority-setting also occurs on a routine basis through the Water Boards' various management meetings and Program Roundtables. These prioritization approaches are coordinated to some degree through the State Water Board's strategic planning process, but the Strategic Plan does not account for routine workload associated with the Water Boards' core regulatory programs. Overall coordination of the various workload commitments and priority-setting mechanisms could be enhanced to allow for more holistic priority-setting and funding decisions across programs.

Table 10: Fee and General Fund Shifts 2010-2013 (in millions)

Fund	2010-11	2011-12[1]	2012-13[2]
Waste Discharge Permit Fund (from fees)	$ 72.6	$ 102.0	$ 103.0
Water Rights Fund (from fees)	$ 8.3	$ 16.1	$ 16.6
General Fund	$ 38.1	$ 18.4	$ 15.8
Source: Governors Proposed Budget 2012-2013, [1]estimated, [2]proposed			

Over the last several years the Water Boards' funding base has shifted to a greater reliance on fees (Table 10). The shift to fees may result in additional constraints to modifying the alignment between resources and priorities. The degree to which the Water Board has flexibility to treat the WDPF as a pooled "general fund", rather than a collection of program specific

subaccounts, will influence how we establish priorities and/or how we set fees. If expenditures must be tied to their corresponding sources of revenue, opportunities for shifting resources to priorities will either be limited or revision to the fee structure (or fee amounts) may be required to better align available and needed resources and priorities.

Section 4

4. Workload Needs and Standards

At the October 18, 2011, State Water Board meeting, the Board directed staff, as part of this report, to develop a systematic method for setting performance targets based on available resources and priorities, starting with the following four programs:

1) NPDES Wastewater;
2) NPDES Stormwater;
3) Waste Discharge to Land[10]; and
4) Irrigated Lands.

A brief description of these programs, the personnel resources currently available, and core workload activities/commitments follows. Additionally, a systematic method for establishing performance targets based on available resources and priorities is described in this section. A successful target setting approach must be based on uniform workload standards so that outputs can be predicted as a function of available resources and results can be compared across Water Board organizations. The approach must also be flexible enough to allow the Regional Water Boards and State Water Board Divisions to focus resources on their specific needs and account for variability in the time needed to conduct work that falls outside of established norms, provided that any deviations from the norms are documented. As discussed below, additional work will be needed before appropriate performance targets can be developed for the Irrigated Lands Regulatory Program (ILRP).

1. NPDES Wastewater

Under the CWA, NPDES permits are used to control water pollution by regulating point source discharges of pollutants into surface waters. In California, the NPDES Program is administered by the State and the vast majority of NPDES permits are issued by the Regional Water Boards. Typically, NPDES permits are issued for a five-year term.

The State and Regional Water Boards issue both individual and general NPDES permits. An individual permit is issued for a specific discharge, based on the type of activity, nature of discharge, receiving water quality,

[10] The Waste Discharge to Land program as defined here primarily involves regulation of municipal and industrial discharges to land, excluding landfills and other solid waste management units. This program is also referred to as the WDR or non-chapter 15 program.

and other factors. Individual NPDES permits are issued to major and minor facilities. Major facilities include wastewater treatment plants with a design flow of more than one million gallons per day and certain industrial facilities. General permits are issued to cover multiple facilities that have similar discharge characteristics and are within defined geographical areas. A large number of facilities can be covered under a single general permit, making it a cost-effective approach to regulating a category of pollutant sources. The Water Boards collectively regulate approximately 263 major facilities and 331 minor facilities under individual NPDES permits. Another 1,300 facilities are regulated under NPDES general permits.

The primary categories of workload activities conducted by staff working in the NPDES Wastewater program include; 1) developing and issuing permits; 2) conducting inspections; 3) reviewing monitoring reports; 4) taking enforcement actions; and 5) program administration. US EPA provides the Water Boards with approximately $11 million per year in CWA section 106 grant funding and additional in-kind services to conduct work in a number of programs, including the NPDES regulatory programs (wastewater and stormwater).

Workload commitments for the NPDES wastewater and stormwatwer programs are established at three-year intervals in a workplan that is jointly developed by the State Water Board and the US EPA (106 Workplan). Workload performance targets for the NPDES wastewater program are also established each year. These targets are designed to correspond to the goals (commitments) contained in the 106 Workplan. One these goals is to maintain 90 percent of all individual and general permits as current. Inspections are a primary tool used in determining and documenting compliance with NPDES permits. The Water Boards conduct inspections directly, or through in-kind contract support, of NPDES individual permittees and unpermitted facilities for the purpose of determining compliance with NPDES permits and the Clean Water Act. Following is a summary of the 106 Workplan goals for conducting inspections in the NPDES Wastewater program:

- Major facilities exhibiting the highest level of compliance will be inspected at least once every two years;

- All other major facilities (not exhibiting high compliance levels) will be inspected every year; and

- Minor facilities will be inspected at least once during the five year permit term

Approximately 88 staff is directly dedicated to the NPDES wastewater program statewide. More than 1,900 facilities are regulated under the program.

2. NPDES Stormwater:

Discharges of pollutants to storm water conveyance systems are significant sources of pollution to surface waters. These discharges are designated by federal law as point source discharges and are subject to NPDES permits. The stormwater program has three main areas of emphasis:

Construction: Projects that disturb one or more acres of soil or that disturb less than one acre but are part of a larger common plan of development, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity. Permit requirements are based on a project's overall risk and include measures to prevent erosion and reduce discharges of sediment and other pollutants. There have been as many as 15,000 active permittees in this program.

Industrial: Specific industrial activities must use the best technology available to reduce pollutants in their discharges pursuant to the State Water Board's statewide General Permit for Discharges of Stormwater Associated with Industrial Activities. In addition, they are required to develop both a storm water pollution prevention plan and a way to monitor their progress. There is an average of 10,000 active permittees in this program area.

Municipal: Large and small municipal Separate Storm Sewer System (MS4) operators must comply with permits that regulate storm water entering their systems under a two phase system. Phase 1 regulates storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. The second phase regulates smaller municipalities, including non-traditional small operations, such as military bases, public campuses, and prison and hospital complexes. The largest, single municipal discharger in California is the California Department of Transportation (Caltrans) and their network of highways and road facilities. In addition to Caltrans there are 21 Phase I municipal permits and 125 permittees enrolled in the statewide Phase II municipal permit.

Stromwater program workload is generally organized by activity within these three areas of emphasis. Workload activities include: 1) developing and issuing permits; 2) conducting inspections and performing audits; 3) reviewing reports; 4) taking enforcement actions; and 5) program

administration. As with the NPDES wastewater program, stormwater program workload goals are established, in part, through the 106 Workplan. The most recent 106 Workplan places an emphasis on conducting inspections and specifies that at a minimum:

- 10 percent of permitted construction sites covering more than 5 acres (Phase I), and 5 percent of permitted construction sites covering less than 5 acres (Phase II) will be inspected each year; and

- 10 percent of all facilities enrolled in the industrial stormwater permit are inspected annually; and

- 20 percent of the Phase I (including the Caltrans MS4 permit) and 5 percent of Phase II MS4 enrollees are audited each year.

Performance targets for the Stormwater program are established based on the commitments contained in the 106 Workplan. In addition to the workload specified in the 106 Workplan, the State Water Board is in currently in the process of updating its statewide construction, industrial, and Caltrans (MS4) general permits. Approximately 92 staff working directly in the NPDES Stormwater program. In FY 2010-11, there were over 7,000 construction sites, 9,400 industrial facilities, and 550 municipalities being regulated.

3. Waste Discharge to Land

The Waste Discharge to land program uses a permit tool called Waste Discharge Requirements (WDRs) as the primary mechanism to regulate a wide range of activities that result in the discharge of waste to land. Waste discharges to land can originate from municipal waste treatment, industrial facilities, landfills, and other activities. Unlike NPDES permits, WDRs are issued pursuant to State authority and do not stem from a delegated federal authority under the CWA.

The primary categories of workload activities conducted by staff win the Waste Discharge to Land Program are similar to those in the NPDES Wastewater program and include; 1) issuing and updating WDRs; 2) conducting inspections; 3) reviewing monitoring reports; 4) taking enforcement actions; and 5) program administration.

Individual WDRs can be issued to regulate a single facility and general WDRs can be issued to cover a class of activities. The Water Boards may also issue waivers of WDRs provided that certain conditions are met.

Waivers of WDRs only remain in effect for five years and are generally used to regulate discharges or activities that represent a lower threat to water quality. When individual or general WDRs are issued they remain in effect for the duration of the discharge and do not contain an expiration date. The Water Boards do, however, recommend that WDRs be reviewed on a frequency of five, ten or fifteen years, based on the discharger's Threat to Water Quality (TTWQ). Annual performance targets for conducting inspections in the Waste Discharge to Land program are based, in part, on this recommended inspection frequency.

There are currently about 83 staff working directly in the Waste Discharge to Land program. Approximately 2,300 facilities are regulated under individual WDRs with another 2,700 facilities covered under general WDRs.

4. Irrigated Lands Regulatory Program

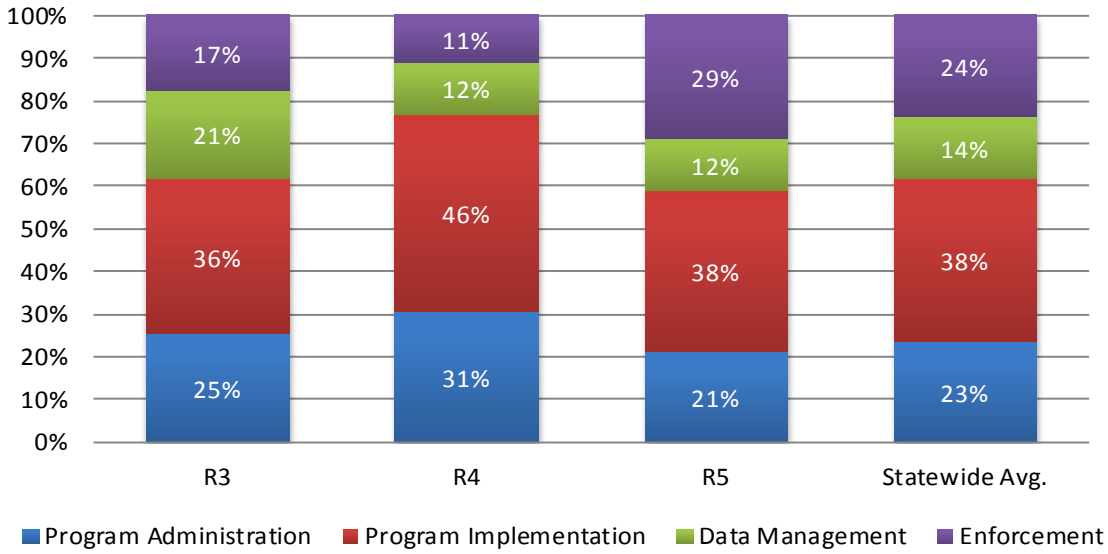
Discharges from agricultural lands include irrigation return flow, flows from tile drains, and storm water runoff. These discharges can affect water quality by transporting pollutants including pesticides, sediment, nutrients, salts, pathogens, and heavy metals from cultivated fields into surface waters. Percolation of irrigation water can also result in widespread salt and nitrate contamination of groundwater. Controlling agricultural pollution is challenging, in part, due to the large amount of land under cultivation in the State and the diffuse nature of the sources. Currently, there are over 28 thousand farming operations that account for more than 6 million acres of agriculture that are being regulated in some form through the Water Boards' Irrigated Lands Regulatory Program (ILRP).

Each regional board implements the ILRP using the various regulatory options available under the Water Code, including WDRs, conditional waivers of WDRs, or prohibitions of discharge. Over the past eight years, participation in the ILRP has grown from three Regional Boards to eight Regional Boards participating in the program, with the State Water Board taking a program coordination role.

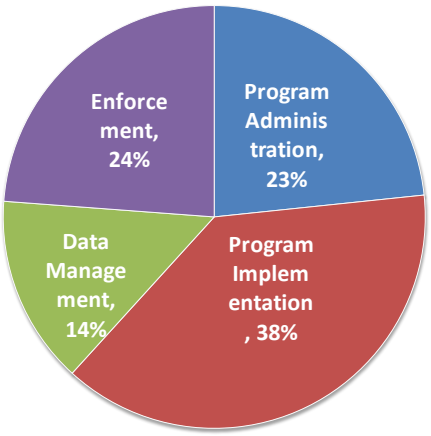
Key aspects of the ILRP include requirements to effectively address the water quality impacts caused by agricultural discharges, monitoring and reporting to verify compliance with program requirements, effective data management, ensuring grower participation, and enforcing the conditions of waivers, WDR's, and prohibitions. The ILRP workload falls within four main categories: 1) program administration; 2) program implementation; 3) data management; and 4) enforcement. The work and workload associated with the ILRP varies significantly by region and the program is both relatively new and in differing stages of development in each region

(Figure 32). As such, it is not currently feasible to develop uniform cost factors (workload standards) for ILRP activities.

Figure 32: Irrigated Lands Program Estimated Workload Distribution by Activity FY 11-12



Discussions with the ILRP Roundtable indicate that the resources used to conduct ILRP activities exceed the resources provided from ILRP fees. Currently, ILRP revenues only provide resources to support 13 direct PYs, but apparently more than 24 direct PYs are being used to implement the program. The apparent discrepancy between PYs estimated to be working in the ILRP and PYs funded by the program is similar to what was observed in the survey results discussed in Section 2. It is anticipated that ILRP resource needs will increase as additional regions develop and implement strategies to address agricultural discharges.



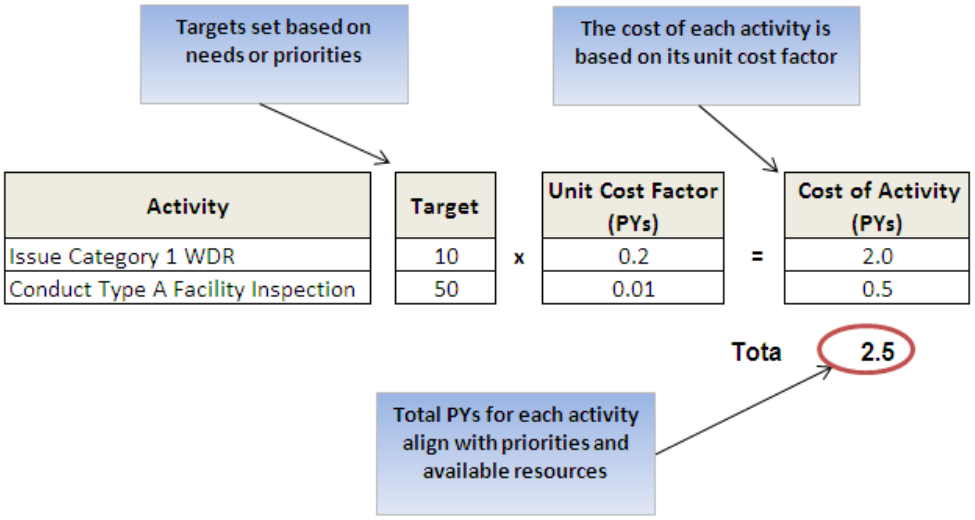
A systematic approach for setting performance targets

Since FY 2009-2010 the Water Boards have prospectively established performance targets for key workload outcomes as part of its annual Performance Report. These targets are jointly established by the State and Regional Water Boards. They reflect differing needs within specific regions and work priorities given available resources. Accordingly, the targets are derived with a consideration of each Regional Water Boards' accomplishments during past years, current priorities, available resources, and the impacts of fiscal and personnel constraints. Historically these targets have been set on a region-by-region basis, where each Regional Board and State Board Division bases its targets on unique criteria and assumptions. This has made it difficult to compare results on a statewide basis.

The first step in developing a systematic method for setting workload targets is to assign or determine the resources allocated to a given program. As discussed in Section 2, allocation of funding to each program is based on multiple factors, including the source of funding, prior year budget allotments, legislative mandates, and priorities sets by the State and Regional Water Boards. Once funding levels for a specific program are established, the next step is to identify the activities that make up each program. For regulatory programs these activities typically include permit writing, conducting inspections, reviewing monitoring reports, case handling, and others. The resources allocated to each program must be distributed to these activities, which is yet another way of setting priories. For example, if there is a backlog of permits past their expiration date and it is determined that permit renewal is a priority, available program resources can be focused on permitting activities. A clear delineation of the specific activities that comprise each program is needed before resources can be distributed to these activities.

Once the key activities in each program are defined, an estimate of the amount of time to complete each activity (unit cost factor) can be used to calculate the expected output resulting from the resources dedicated to those activities (Figure 33).

Figure 33: Example of Setting Targets Using Cost Factors



Using unit cost factors, target setting can occur from the top down, where resources are allocated by program, and then further allocated by activity, in which case targets are derived based on the distribution of resources by activity. For example if 100 hours are dedicated to conducting inspections at construction sites and each inspection takes 20 hours, the target for inspections would be five11. Targets can also be generated using a bottom up approach, where targets are set based on program need and the unit cost factors are used to determine the amount of resources needed to meet the proposed targets. In practice, resources are finite and target setting is iterative, employing a combination of both approaches. The use of unit costs factors, however, creates a common denominator by which results can be compared across regions.

[11] i.e., 100 hours available for conducting inspections divided by 20 hours per inspection equals a target of 5 inspections

In November and December of 200, the Water Board roundtables[12] were convened to define the key activities that make up each program and estimate unit cost factors for each activity. The delineation of the key activities and associated unit cost factors for the NPDES Wastewater, NPDES Stormwater, and the Waste Discharge to Land programs were developed in collaboration with the Water Board Roundtables/Program Managers and were validated using the 2000 Needs Assessment and information provided by US EPA on contractor costs for developing NPDES permits and conducting inspections. A comparison of the range of permitting, inspection, and report review unit cost factors are presented in Table 11. Direct comparison of contractor and Water Board permitting cost factors is not entirely appropriate because permitting tasks conducted by contractors do not account for the full range the permitting work required of Water Board staff (e.g., CEQA compliance, economic analysis, preparation for Regional Water Board consideration, responding to comments, state administrative procedural requirements etc.). Additionally, Water Board permit writers have generally been responsible for developing the more complex permits; while contractors are more typically used to develop routine permits.

Table 11: Range of Unit Cost Factors for Permitting, Inspection, and Report Review (in hours)

Cost Factor Source	Activity Type			
	Permitting	Inspections	Report Review	Enforcement
NPDES Wastewater Roundtable	185-497	8-24	1-2	8-200
NPDES Stormwater Roundtable	28-143[1]	3-59	2-12[2]	1-385
Waste Discharge to Land Roundtable	280-960	16-24	3	8-350
2000 Needs Assessment	220-833	10-18	1-27	7-203
US EPA Contractor Cost	158-203	24-48	n/a	n/a

[1]Exlcludes development of Regional /County permits which have a range of 933-3,150 hours;
[2]Excludes MS4 and Caltrans report review tasks which have a range of 14-81 hours.

Unit cost factors were developed for a broad range of activities for each program; however, it was not practical to develop cost factors for all of the work attributed to each program. Establishing cost factors for program management and certain enforcement tasks is not useful because it is

[12] Roundtables are expert level coordinating committees comprised State and Regional Water Board staff working on a specific program. The NPDES Wastewater, NPDES Stormwater, Waste Discharge to Land, and Irrigated Lands Regulatory programs roundtables were engaged in defining their respective program tasks and estimating unit cost factors.

difficult to predict the costs incurred from these tasks on a unit basis. Nonetheless, all of the work associated with a program must be accounted for, so program outputs can be accurately tied to available resources. For example, if a program is allocated a total of fifteen PYs and 20 percent is associated with program management (e.g., case handing, data entry, meetings, etc,), 3 PYs will not be available to write permits, conduct inspections, or perform other tasks for which a unit cost factor is assigned (Figure 34). Therefore, the work associated with these tasks has been identified and will be assigned a percent of the available resources based on the specific needs in each region.

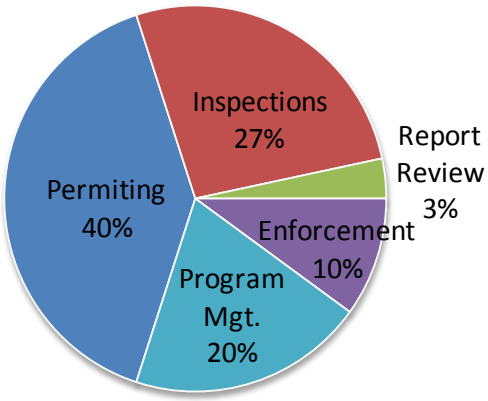
Figure 34: Example Distribution of PYs to Activities with and without Unit Cost Factors

Total PYs allocated to Program: 15

PYs allocated align with PY Value of Workload

Activity	Target	Unit Cost Factor (PYs)	Cost of Activity (PYs)
Permitting	30	0.2	6
Inspections	400	0.01	4
Report Review	5000	0.0001	0.5
Enforcement	15	0.1	1.5
Program Mgt.	20% of available resources		15PY*20% = 3

Total PY Value of Work Conducted: 15



This proposed methodology will be first implemented in establishing FY 2012/2013 performance targets for the NPDES Wastewater, NPDES Stormwater, and the Waste discharge to Land programs using the activities and cost factors that have been developed by the Roundtables. As described above, tasks without unit costs factors will be accounted for by assigning a percent of total available resources to those activities. Each organization will have the ability to identify and describe specific activities or projects for which unit cost factors have not been established (e.g., development of an unusually complex or controversial permit). Using this approach the Water Boards will have the flexibility to assign resources to program activities based on specific needs and/or priorities, but the total outputs from each organization will be based on common assumptions and will be comparable across the state. A spreadsheet model, based on the activities and cost factor information for each program, will be provided to Water Board managers to facilitate the target setting process and ensure uniform results. The unit cost factors developed as part of this report should be viewed as a starting point and will be revised over time.

Appendix A: WDPF Funded programs by Funding Sources FY 2000-2001 through FY 2011-2012 (nominal $)

WDPF PROGRAMS	FY 2000-01	FY 2001-02	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
NPDES	**$ 17,327,185**	**$ 16,660,935**	**$ 16,855,794**	**$ 15,181,558**	**$ 15,829,379**	**$ 16,435,205**	**$ 16,053,441**	**$ 18,758,578**	**$ 19,771,840**	**$ 16,878,981**	**$ 17,722,989**	**$ 15,748,794**
Federal	$ 5,684,923	$ 3,738,451	$ 5,629,373	$ 3,400,745	$ 3,683,604	$ 3,838,928						
Funded from Fees	$ 4,918,821	$ 5,336,229	$ 11,226,421	$ 11,780,813	$ 12,145,775	$ 12,596,277	$ 12,521,684	$ 17,278,780	$ 18,208,760	$ 16,878,981	$ 16,305,150	$ 15,748,794
General Fund	$ 6,723,441	$ 7,586,255					$ 3,531,757	$ 1,479,798	$ 1,563,080		$ 1,417,839	
TMDL	**$ 12,056,528**	**$ 16,143,895**	**$ 13,948,830**	**$ 13,855,343**	**$ 13,708,392**	**$ 13,417,350**	**$ 14,988,060**	**$ 16,091,051**	**$ 14,287,017**	**$ 15,112,885**	**$ 15,627,430**	**$ 16,370,570**
Federal	$ 1,520,944	$ 1,473,896	$ 1,478,243	$ 2,798,506	$ 2,564,988	$ 3,160,305	$ 3,328,901	$ 3,093,910	$ 3,537,137	$ 4,100,684	$ 4,113,011	$ 4,505,950
Funded from Fees												$ 11,864,620
General Fund	$ 10,535,584	$ 14,669,999	$ 12,470,587	$ 11,056,837	$ 11,143,404	$ 10,257,045	$ 11,659,159	$ 12,997,141	$ 10,749,880	$ 11,012,201	$ 11,514,419	
STORMWATER	**$ 9,598,248**	**$ 9,561,392**	**$ 12,487,400**	**$ 12,612,475**	**$ 13,607,910**	**$ 13,717,715**	**$ 15,191,316**	**$ 16,480,382**	**$ 16,717,324**	**$ 15,154,922**	**$ 14,615,497**	**$ 16,050,447**
Federal	$ 331,558	$ 481,128	$ 704,097	$ 517,527	$ 665,890	$ 810,108						
Funded from Fees	$ 4,580,197	$ 4,543,771	$ 6,958,233	$ 12,094,948	$ 12,942,020	$ 12,907,607	$ 15,191,316	$ 16,480,382	$ 16,717,324	$ 15,154,922	$ 14,615,497	$ 16,050,447
General Fund	$ 4,686,493	$ 4,536,493	$ 4,825,070									
WDR	**$ 12,470,171**	**$ 12,666,196**	**$ 9,026,599**	**$ 9,904,449**	**$ 10,164,159**	**$ 11,321,384**	**$ 12,781,520**	**$ 14,082,467**	**$ 16,778,952**	**$ 14,504,650**	**$ 13,788,880**	**$ 14,952,989**
Funded from Fees	$ 2,401,260	$ 2,658,553	$ 4,413,789	$ 9,904,449	$ 10,164,159	$ 11,321,384	$ 12,781,520	$ 14,082,467	$ 16,778,952	$ 14,504,650	$ 13,788,880	$ 14,952,989
General Fund	$ 10,068,911	$ 10,007,643	$ 4,612,810									
LAND DISPOSAL	**$ 9,904,083**	**$ 10,301,533**	**$ 8,971,469**	**$ 9,280,634**	**$ 9,565,878**	**$ 9,854,741**	**$ 11,269,030**	**$ 12,020,270**	**$ 12,603,130**	**$ 11,199,458**	**$ 11,098,381**	**$ 12,183,668**
Funded from Fees	$ 762,016	$ 901,040	$ 3,796,448	$ 4,189,861	$ 4,332,932	$ 4,215,657	$ 5,461,749	$ 5,522,710	$ 6,033,674	$ 5,436,338	$ 6,929,337	$ 7,932,926
General Fund	$ 3,259,336	$ 4,116,718										
Integrated Waste Fees	$ 5,882,731	$ 5,283,775	$ 5,175,021	$ 5,090,773	$ 5,232,946	$ 5,639,084	$ 5,807,281	$ 6,497,560	$ 6,569,456	$ 5,763,120	$ 4,169,044	$ 4,250,742
SWAMP	**$ 6,442,728**	**$ 5,872,092**	**$ 5,310,675**	**$ 7,087,910**	**$ 6,008,863**	**$ 6,411,065**	**$ 14,043,442**	**$ 8,874,734**	**$ 12,234,563**	**$ 15,400,414**	**$ 10,851,285**	**$ 11,328,441**
Federal							$ 4,277,400	$ 1,507,200	$ 5,952,539	$ 7,027,884	$ 4,916,165	$ 5,079,000
Funded from Fees				$ 5,303,205	$ 6,008,863	$ 6,411,065	$ 9,766,042	$ 7,367,534	$ 6,282,024	$ 8,372,530	$ 5,935,120	$ 6,249,441
General Fund	$ 6,442,728	$ 5,872,092	$ 5,310,675	$ 1,784,705								
BASIN PLANNING	**$ 5,149,229**	**$ 6,114,990**	**$ 5,845,709**	**$ 4,937,210**	**$ 5,268,992**	**$ 5,911,515**	**$ 6,575,657**	**$ 6,740,494**	**$ 7,205,148**	**$ 6,684,575**	**$ 7,488,095**	**$ 8,203,940**
Funded from Fees							$ 1,000,000	$ 648,900	$ 1,225,801	$ 946,625	$ 1,181,861	$ 8,203,940
General Fund	$ 5,149,229	$ 6,114,990	$ 5,845,709	$ 4,937,210	$ 5,268,992	$ 5,911,515	$ 5,575,657	$ 6,091,594	$ 5,979,347	$ 5,737,950	$ 6,306,234	
TIMBER	**$ 3,253,690**	**$ 3,389,666**	**$ 3,490,124**	**$ 3,588,210**	**$ 3,801,533**	**$ 4,135,048**	**$ 4,469,698**	**$ 4,615,512**	**$ 4,380,609**	**$ 4,364,755**	**$ 8,159,558**	**$ 7,336,201**
General Fund	$ 3,253,690	$ 3,389,666	$ 3,490,124	$ 3,588,210	$ 3,801,533	$ 4,135,048	$ 4,469,698	$ 4,615,512	$ 4,380,609	$ 4,364,755	$ 8,159,558	$ 7,336,201
ENFORCEMENT	**$ 2,241,488**	**$ 2,855,683**	**$ 3,697,462**	**$ 2,774,695**	**$ 2,943,517**	**$ 3,484,319**	**$ 4,050,208**	**$ 4,987,441**	**$ 5,107,424**	**$ 4,756,673**	**$ 4,710,355**	**$ 5,295,576**
Funded from Fees	$ 259,587	$ 281,057	$ 232,354	$ 2,774,695	$ 2,943,517	$ 3,484,319	$ 4,050,208	$ 4,987,441	$ 5,107,424	$ 4,756,673	$ 4,710,355	$ 5,295,576
General Fund	$ 1,981,901	$ 2,574,626	$ 3,465,108									
401 CER	**$ 2,071,393**	**$ 2,053,136**	**$ 1,810,429**	**$ 2,362,336**	**$ 3,131,346**	**$ 2,339,982**	**$ 2,515,646**	**$ 3,459,102**	**$ 3,262,827**	**$ 2,736,329**	**$ 3,017,547**	**$ 3,004,581**
Funded from Fees	$ 1,693,965	$ 1,589,640	$ 1,506,737	$ 2,100,407	$ 3,131,346	$ 2,339,982	$ 2,515,646	$ 3,459,102	$ 3,262,827	$ 2,736,329	$ 3,017,547	$ 3,004,581
General Fund	$ 377,428	$ 463,496	$ 303,692	$ 261,929								
GAMA	**$ 2,813,587**	**$ 2,627,537**	**$ 1,792,488**	**$ 1,857,003**	**$ 1,868,245**	**$ 1,890,559**	**$ 1,738,299**	**$ 1,801,460**	**$ 2,024,611**	**$ 1,810,443**	**$ 2,009,018**	**$ 2,050,727**
Funded from Fees	$ 2,813,587	$ 2,627,537			$ 1,868,245	$ 1,890,559	$ 1,738,299	$ 1,801,460	$ 2,024,611	$ 1,810,443	$ 2,009,018	$ 2,050,727
General Fund			$ 1,792,488	$ 1,857,003								
CAFO	**$ 1,064,560**	**$ 1,286,524**	**$ 910,706**	**$ 1,259,694**	**$ 1,034,966**	**$ 958,929**	**$ 1,910,164**	**$ 2,359,444**	**$ 2,822,556**	**$ 2,258,481**	**$ 2,107,342**	**$ 2,412,594**
Federal				$ 287,737								
Funded from Fees	$ 444,409	$ 449,556	$ 450,034	$ 971,957	$ 1,034,966	$ 958,929	$ 1,910,164	$ 2,359,444	$ 2,822,556	$ 2,258,481	$ 2,107,342	$ 2,412,594
General Fund	$ 620,151	$ 836,968	$ 460,672									
ILRP			**$ 451,130**	**$ 713,200**	**$ 2,977,488**	**$ 1,964,974**	**$ 1,980,441**	**$ 2,273,515**	**$ 2,199,060**	**$ 1,736,921**	**$ 1,778,863**	**$ 1,914,414**
Funded from Fees				$ 713,200	$ 2,977,488	$ 1,964,974	$ 356,479	$ 409,233	$ 395,823	$ 312,646	$ 284,618	$ 1,914,414
General Fund			$ 451,130				$ 1,623,962	$ 1,864,282	$ 1,803,237	$ 1,424,275	$ 1,494,245	
Grand Total	**$ 84,392,890**	**$ 89,533,579**	**$ 84,598,815**	**$ 85,414,717**	**$ 89,910,668**	**$ 91,842,786**	**$ 107,566,922**	**$ 112,544,450**	**$ 119,395,061**	**$ 112,599,487**	**$ 112,975,240**	**$ 116,852,942**

Appendix B: 2010 Integrated Report. Top ten most frequently causes of impairments by Regional Board.

A review of the 2010 Integrated Report, for example, reveals that bacteria or pathogens are among the top ten most frequently listed causes of impairment in every region of the state. More information about the integrated report is available at http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

Summary of Top 10 Pollutants and Top 10 Pollution Sources by RB- 2010 Integrated Report

Top 10 Pollutants and Top 10 Sources - Statewide

POLLUTANTS - STATEWIDE	Total
Sedimentation/Siltation	661
Fecal Coliform	375
Temperature, water	287
Mercury	257
Escherichia coli (E. coli)	237
Phosphorus	191
pH	180
Unknown Toxicity	174
Total Coliform	167
Nutrients	165
Grand Total	**2,694**

SOURCE CATEGORY - STATEWIDE	Total
Agriculture	1,383
Source Unknown	1,181
Unspecified Nonpoint Source	1,087
Urban Runoff	895
Natural Sources	419
Unspecified Point Source	403
Habitat Modification	330
Hydromodification	309
Resource Extraction	264
Municipal Wastewater	144
Grand Total	**6,415**

Top 10 Pollutants and Top 10 Sources – Region 1

POLLUTANTS - Region 1	Total
Sedimentation/Siltation	367
Temperature, water	211
Nutrients	55
Organic Enrichment/Low Dissolved Oxy	47
Sediment	43
Cyanobacteria hepatotoxic microcystins	41
Mercury	17
Indicator Bacteria	12
Oxygen, Dissolved	11
Aluminum	5
Grand Total	**809**

SOURCE CATEGORY - Region 1	Total
Hydromodification	182
Habitat Modification	167
Agriculture	119
Silviculture	81
Unspecified Nonpoint Source	71
Construction/Land Development	46
Natural Sources	40
Source Unknown	37
Resource Extraction	31
Urban Runoff	10
Municipal Wastewater	10
Grand Total	**794**

Top 10 Pollutants and Top 10 Sources – Region 2

POLLUTANTS - Region 2	Total
Mercury	97
Trash	53
Diazinon	38
Selenium	23
PCBs (Polychlorinated biphenyls)	20
Coliform Bacteria	17
Dieldrin	16
Chlordane	16
Sedimentation/Siltation	15
Pathogens	13
Indicator Bacteria	13
Nutrients	13
Grand Total	**334**

SOURCE CATEGORY - Region 2	Total
Urban Runoff	98
Unspecified Nonpoint Source	81
Source Unknown	76
Atmospheric Deposition	38
Industrial Wastewater	34
Municipal Wastewater	27
Unpermitted Discharges	26
Resource Extraction	25
Natural Sources	18
Construction/Land Development	13
Grand Total	**436**

Top 10 Pollutants and Top 10 Sources – Region 3

POLLUTANTS - Region 3	Total
Fecal Coliform	263
Escherichia coli (E. coli)	179
Sedimentation/Siltation	141
Low Dissolved Oxygen	135
pH	119
Nitrate	113
Sodium	106
Turbidity	95
Chloride	88
Unknown Toxicity	81
Grand Total	**1,320**

SOURCE CATEGORY - Region 3	Total
Agriculture	750
Urban Runoff	327
Source Unknown	230
Natural Sources	202
Habitat Modification	100
Unspecified Nonpoint Source	76
Hydromodification	45
Construction/Land Development	38
Municipal Wastewater	36
Waste Storage And Disposal	33
Grand Total	**1,837**

Top 10 Pollutants and Top 10 Sources – Region 4

POLLUTANTS - Region 4	Total
Trash	86
Indicator Bacteria	72
Algae	70
Total Dissolved Solids	69
Coliform Bacteria	63
Sulfates	61
Ammonia	60
Chloride	51
PCBs (Polychlorinated biphenyls)	48
Eutrophic	48
Grand Total	**628**

SOURCE CATEGORY - Region 4	Total
Unspecified Nonpoint Source	504
Source Unknown	212
Unspecified Point Source	144
Agriculture	119
Urban Runoff	105
Groundwater Related	80
Atmospheric Deposition	59
Municipal Wastewater	57
Recreation Areas And Activities	34
Waste Storage And Disposal	27
Grand Total	**1,341**

Top 10 Pollutants and Top 10 Sources – Region 5

POLLUTANTS - Region 5	Total
Mercury	113
Unknown Toxicity	88
Chlorpyrifos	71
Diazinon	64
Escherichia coli (E. coli)	52
Sediment Toxicity	30
Oxygen, Dissolved	23
DDT (Dichlorodiphenyltrichloroethane)	22
Group A Pesticides	19
Copper	18
Boron	18
PCBs (Polychlorinated biphenyls)	18
Grand Total	**536**

SOURCE CATEGORY - Region 5	Total
Source Unknown	294
Agriculture	284
Resource Extraction	142
Urban Runoff	66
Recreation Areas And Activities	6
Natural Sources	6
Hydromodification	4
Industrial Wastewater	2
Municipal Wastewater	2
Miscellaneous	1
Silviculture	1
Construction/Land Development	1
Unspecified Nonpoint Source	1
Groundwater Related	1
Waste Storage And Disposal	1
Habitat Modification	1
Sediment	1
Grand Total	**814**

Top 10 Pollutants and Top 10 Sources – Region 6

POLLUTANTS - Region 6	Total
Phosphorus	116
Nitrogen	103
Sedimentation/Siltation	84
Pathogens	36
Iron	28
Metals	20
Total Dissolved Solids	19
Salinity/TDS/Chlorides	14
Manganese	11
Arsenic	9
Grand Total	**440**

SOURCE CATEGORY - Region 6	Total
Natural Sources	73
Agriculture	54
Hydromodification	47
Habitat Modification	46
Resource Extraction	37
Source Unknown	34
Unspecified Nonpoint Source	32
Urban Runoff	32
Atmospheric Deposition	24
Recreation Areas And Activities	23
Grand Total	**402**

Top 10 Pollutants and Top 10 Sources – Region 7

POLLUTANTS - Region 7	Total
DDT (Dichlorodiphenyltrichloroethane)	7
Pathogens	7
Nutrients	6
Toxaphene	5
Selenium	5
Dieldrin	4
PCBs (Polychlorinated biphenyls)	4
Salinity	3
Chlordane	3
Chlorpyrifos	3
Grand Total	**47**

SOURCE CATEGORY - Region 7	Total
Source Unknown	47
Agriculture	7
Miscellaneous	6
Municipal Wastewater	3
Unspecified Point Source	2
Industrial Wastewater	1
Grand Total	**66**

Top 10 Pollutants and Top 10 Sources – Region 8

POLLUTANTS - Region 8	Total
Pathogens	20
Nutrients	20
Indicator Bacteria	12
Sedimentation/Siltation	11
Ammonia (Unionized)	10
Copper	9
pH	8
PCBs (Polychlorinated biphenyls)	8
Sediment Toxicity	6
Lead	5
Fecal Coliform	5
Pesticides	5
Grand Total	**119**

SOURCE CATEGORY - Region 8	Total
Source Unknown	85
Unspecified Nonpoint Source	28
Agriculture	17
Urban Runoff	15
Construction/Land Development	5
Recreation Areas And Activities	3
Hydromodification	2
Habitat Modification	2
Resource Extraction	1
Groundwater Related	1
Sediment	1
Grand Total	**160**

Top 10 Pollutants and Top 10 Sources – Region 9

POLLUTANTS - Region 9	Total
Total Coliform	134
Enterococcus	107
Toxicity	78
Phosphorus	72
Fecal Coliform	71
Total Dissolved Solids	57
Total Nitrogen as N	42
Selenium	41
Copper	37
Indicator Bacteria	36
Grand Total	**675**

SOURCE CATEGORY - Region 9	Total
Unspecified Nonpoint Source	294
Urban Runoff	242
Unspecified Point Source	234
Source Unknown	166
Natural Sources	58
Agriculture	28
Hydromodification	14
Waste Storage And Disposal	9
Industrial Wastewater	6
Municipal Wastewater	6
Grand Total	**1,057**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